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ABSTRACT

In this document, the author traces the history of, explains the revisions to, and points up the political issues involved in the National School Lunch Act of 1964 and the Child Nutrition Act of 1966. The author cites research that establishes the adverse effect of malnutrition on the learning process, outlines basic concepts for nutrition education, and presents arguments for and against the proposed universal free lunch program. Examples of how some school systems have coped with the bookkeeping involved in protecting the privacy of recipients of free or reduced-pri meals are provided in several case studies. Also presented are some of the imaginative innovations that modern technology has produced that enable lunch to be served at old schools lacking kitchen facilities. Among these innovations are (1) "satelliting" -- the preparing of food (usually preportioned) in a central plant; frozen efficiency foods; the cup-can system -- a prepackaged main course that is heated at the school; and contract feeding -- the farming out of the school system's food business to private corporations. Suggestions are offered for establishing and improving school food programs. (MLF)

SCHOOL LUNCH BREAKTHROUGH

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SCHOOL LUNCH

OVERVIEW

School programs to feed children--for both lunch and breakfast--have reached a watershed in the 1970s. Major changes are in the offing because of two simultaneous breakthroughs--one on the political front and the other on the technological front. In 1969 and again in 1970 Pres. Nixon set the goal: "To put an end to hunger in America's classrooms." And his Democratic opponents in Congress are pressing him to fulfill his promise. The result: plenty of political clout to effect change.

Meanwhile, new technology for mass feeding systems is being developed at a rapid pace. Today's efficient "satellite" systems, where food is prepared in a central kitchen and trucked out to the district's schools, are far removed from earlier times when volunteer mothers sometimes brought their own pots and pans to the neighborhood school and helped to serve the food.

The current program--considered inadequate by many critics--is already big business, and it's getting bigger. The U.S. Dept. of Agriculture (USDA), which administers the National School Lunch Program (NSLP), estimates that more than 8 million needy children were getting free or reduced-price lunches at school in 1972, and more than 25 million were participating in some part of the program. Yet the need is still great:

- While USDA estimates that 1 million underprivileged children are still going hungry at lunchtime, other estimates range as high as 5 million.
- Some 18,000 U.S. schools have no school lunch program at all. And in those schools with programs, many children still do not participate.

The desirability of Nixon's stated goal of eliminating hunger in America's classrooms can hardly be argued. Study after study has proved beyond doubt that hungry children cannot learn well. Their classroom performance is understandably listless and apathetic. If there is early and prolonged malnourishment, actual brain damage and permanent retardation in both mind and body may occur. If for no other reason than trying to save one of the nation's most precious resources--its

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children--and make it possible for them to achieve their full potential in the education system, the National School Lunch Program is clearly a necessity.

Yet, despite the President's pledges, there have been temporary setbacks. For example, in August 1971, just days before the fall semester began, USDA announced a complicated new set of regulations, which were immediately denounced by many school lunch officials throughout the nation. The American School Food Service Assn. (ASFSA) said the proposed rules would bring the program "to a screeching halt." The former president of the American Assn. of School Administrators (AASA), John B. Geissinger, said, "It's a curious order of priorities that puts resuscitation of an aircraft manufacturer (Lockheed) ahead of human hunger." Sen. George McGovern, D-S.D., chairman of the Senate Select Committee on Hunger and Malnutrition, said the new regulations could "blatantly violate both the spirit and the letter of the school lunch law" passed in 1970, and accused USDA of bowing to the budget-cutting pressures of the Office of Management and Budget.

Asst. Secy. of Agriculture Richard Lyng, testifying before McGovern's committee, said the rules had been "misunderstood" and insisted they were instead "a dramatic breakthrough in program funding." But the outcry was so great that USDA was forced to backtrack. It announced that the program would be funded in full. Funding for the program amounted to $532 million in fiscal 1971--more than triple the $160 million expended in fiscal 1968. The number of children receiving free or reduced-price lunches made a comparable jump in the three-year period--from 2.7 million in 1968 to 8.1 million in 1971.

> Today, with "25 million for lunch" every school day, the school lunch program has become the world's largest restaurant. Its sheer size and the federal commitment to it give schools enormous purchasing power. School administrators thinking of entering the system sometimes do not realize what potential leverage they have in bulk purchases and in becoming large and favored customers for food processing equipment. Commercial bulk food purveyors, however, are well aware of this huge market for their product and are vying for their share.

Historical Perspective

NSLP as it is constituted today began in 1946, when Congress passed the National School Lunch Act--since amended and refined in important ways--with the stated purpose: "to safeguard the health and well-being of the nation's children and to encourage the domestic consumption of nutritious agricultural commodities and other food." But the earliest federal aid dates to 1932, when the Reconstruction Finance Corp. granted loans to several towns in Missouri for labor to prepare school lunches.

Private and philanthropic efforts date back even further, to 1790 in fact, when a generous nobleman began providing combined feeding and schooling for vagrant children in Munich, Germany. The first American effort was in 1853, when the Children's Aid Society of New York served meals to students attending a vocational school. By the turn of the century private groups and

school boards were supporting "penny lunch" programs in the schools of many American cities. The concept, therefore, has a long history and is deeply rooted in our society, and it has grown steadily.

By 1935 Congress had passed a law containing the still-important Section 32, under which 30% of the gross receipts from U.S. customs duties were applied to removing price-depressing surplus foods from the market. Poor families and school lunch programs became important outlets for these funds, which were administered by USDA, giving it the foothold in the school lunch program that continues today.

Since 1946, when the National School Lunch Act authorized USDA to set nutritional standards to be met by participating schools, the Type A lunch has become a part of the school administrator's lexicon. By definition, a Type A lunch must provide one-third or more of a child's minimum daily nutritional requirement. A school has wide leeway, however, in the choice of food it uses. While each lunch must contain specified amounts of food from five particular food groups (see box below), school officials in charge of the feeding program are finding that student likes and dislikes must be heeded as well. If the student doesn't like what's put on his plate, in many cases it's still there when lunch is over.

An important revision of the National School Lunch Act--the Child Nutrition Act of 1966--provided for a School Breakfast Program. A concept that is becoming increasingly accepted, the School Breakfast Program is especially popular in economically depressed areas or where children must ride buses for a long period of time in order to get to centralized schools. The 1966 revisions also included a separate Special Milk Program and a new nonfood assistance provision.

What's Wrong with the School Lunch Program?

Despite the advances made by the school lunch program, certain problems continue to plague it. Two that are specifically cited by USDA are communications and local program accountability. USDA officials readily admit that they find it difficult to keep local programs informed of federal guidelines and regulations on feeding programs. In an attempt to solve this problem, USDA prepares a policy kit which explains rules and exceptions of the National

Type A Lunch—Minimum Requirements

One-half pint of fluid whole milk.
Two ounces of lean meat, poultry or fish, or 2 ounces of cheese or 1 egg, or 1/2 cup of dried beans or peas or 4 tablespoons of peanut butter or a combination of these as a main dish.
3/4 cup of fruit or vegetables. Vegetable or fruit juices may be used for not more than one-fourth of this requirement.
One slice of whole-grain or enriched bread, or cornbread, biscuits, muffins, etc., of similar quality.
Two teaspoons of butter or fortified margarine.

School Lunch Program. However, USDA officials say their job is made more difficult by the continual revisions to the program, frequently made immediately before or after the beginning of a new school year.

The second problem, accountability, also involves state coordination of the school food program. Each state is required, by federal regulation, to review yearly one-third of the school food programs operating in local districts. The state coordinator must then report any program violations to USDA. Technically, a local program could be in violation for two to three years before USDA would be aware of the problem. Even then, few school districts have had funds withdrawn by USDA due to the results of their evaluation.

Many school food directors criticize USDA for the vast amount of record keeping they must do in order to satisfy federal requirements. USDA says it is continually trying to cut down on the number of forms and other paperwork required of each school food program.

> The most controversial portions of current school food program requirements are those used to determine which children receive free or reduced-price lunches, and the manner in which the individual school provides lunches.

The secretary of agriculture is authorized to set the minimum income level under which parents can apply for their children to participate. This figure is currently $4,110 for a family of four, which many in Congress criticize as being too low. The parent, often poorly educated and suspicious of the "system," must make a written application either personally or through a social worker. This requires the parent to proclaim, not publicly but at least to himself or herself, that he or she is poverty-stricken. Sociologists have found that the great majority of the poor in America are just as proud as anyone else, sometimes more so. Some are too proud to make an application even though it means their children may not get to eat lunch. Other parents do not realize the program is available, especially if communications between school and home have broken down.

Even more serious, perhaps, is the effect on the children. They know, even if no one else does, that they are in a special class apart from their peers--they are on the dole, they are different, they feel inferior. Although the law requires that no overt identification of a needy child should be made among his schoolmates, some of the current systems of administering the program have that effect. Some insensitive or unknowing school officials continue to violate USDA regulations by requiring students who receive free lunches to stand in a separate line. Others issue lunch tickets of a different color than the rest, or in some way let it be known who the free lunch kids are. The effect can be devastating on a child's image of himself, and there have been many documented cases of children who refused to eat any lunch to avoid this kind of humiliation. Even if the child is issued lunch money privately in the school office, it puts him in the position, as one critic put it, of being "a daily beggar for his bread."

Ways can and have been devised, and USDA offers guidelines, to help avoid any overt identification of needy children, but the administrative problems such a system imposes on school authorities--identifying these children and

seeing to it that they get a lunch without embarrassment, not to mention the paperwork involved because of different scales of reimbursement for different classes of children--add up to a jungle of red tape.

An Ultimate Solution

The problems cited above and others have given impetus to some proposed solutions, the most controversial of which is a universal school lunch program. Under such a program, every school child in the nation, regardless of economic status, would be entitled to a free lunch.

McGovern and Hubert H. Humphrey, D-Minn., among other senators, as well as Rep. Carl Perkins, D-Ky., chairman of the Education and Labor Committee, have introduced legislation aimed at a universal school lunch program. Advocates of such a program admit that the cost would be considerably higher than that of the present program, but they counter with the argument that other industrial countries such as Sweden and Japan successfully use such systems. To test the feasibility of a universal school lunch program for the United States, McGovern favors a $22.5 million, three-year pilot program.

Although the proposal for universal free lunches seems to be gaining momentum, opponents point out what they see as "serious obstacles," the greatest of which is financing. They say other education expenditures might have to be cut in order to cover the added cost of a universal school lunch program. Advocates concede it may be some years before the universal program comes to fruition, but they say historical forces appear to favor it. In the school lunch business, this may well be the wave of the future, an idea whose time has come.

HOW THE NATIONAL PROGRAM WORKS

The National School Lunch Act of 1946, many times revised, has come a long way toward providing at least one nutritional meal a day to many school-age children. Although the lunch act and the Child Nutrition Act of 1966 are not seen by most as ultimate solutions to child-feeding problems, they have paved the way for further expansion or for newer, more radical proposals.

Administered by USDA's Food and Nutrition Service, the National School Lunch Act and the Child Nutrition Act include four basic child nutrition programs: NSLP, the School Breakfast Program, the Special Milk Program and the Special Food Service for Children.

National School Lunch Program

The school lunch program, the largest school feeding program, has made it possible for schools to serve nutritional, low-cost lunches to all children each school day. In addition, those children deemed "needy" by their school are entitled to a free or reduced-price lunch (provided that the state and school do not set the school's eligibility limit for free lunches at more than 25% above the federal poverty guideline of $4,110 for a family of four, nor at more than 50% above the federal guideline for reduced-price lunches), according to the 1972 revisions to the National School Lunch Act and the Child Nutrition Act--officially known as Public Law 92-433.

Federal funds for NSLP are apportioned among states to reimburse participating schools on a "performance basis." This means participating schools receive a federal reimbursement of 8¢ for each lunch served. In addition, they receive about 40¢ for each free lunch and at least 20¢ for each reduced-price lunch served. The average cost for a school lunch is estimated at 60¢. Under the nonfood assistance program, federal funds help needy schools acquire food service equipment. In addition, USDA buys and distributes to schools in the program foods such as frozen and canned meat and poultry, cereal products, dairy products, dry beans and peas, and a variety of canned fruits and vegetables.

School Breakfast Program

The School Breakfast Program is designed to provide a nutritional breakfast to schoolchildren. Although originally intended to concentrate on schools in low-income areas, the program is now available to all schools as a result of Public Law 92-433.

Federal funds for school breakfasts are apportioned among the states to pay schools for the cost of locally purchased foods. And, similar to reimbursement provisions of the lunch program, school breakfast programs may be reimbursed up to 100% of operating costs in schools with especially needy children. USDA-donated foods are also provided for the programs, and additional money is available to buy kitchen equipment. To participate in the breakfast program, schools must meet USDA nutritional standards which means schools must provide fruit or juice, milk, bread or cereal. A high protein food must be served as often as possible. The 1972 revisions authorize future funding of the breakfast program on a "performance basis" similar to that now being used for funding the lunch program. The legislation takes effect beginning in fiscal 1974.

Special Milk Program

The Special Milk Program is aimed at encouraging children to drink more milk by reimbursing schools, child care centers and camps for part of the cost of the milk served. Thus, participating schools and child care institutions can provide children with milk at a reduced price. Schools that provide milk as part of their food program may be eligible to participate in the Special Milk Program if they develop a plan for increasing milk consumption. Schools serving a substantial number of needy children may be eligible to receive full reimbursement for the cost of milk if it is served free to the needy children. The milk program has been particularly significant where there has been no regular food service.

Special Food Service Program

The Special Food Service Program for Children is designed to aid states in providing food services for both preschool and school-age children in both public and nonprofit private institutions. These institutions include day care centers, settlement houses, recreation centers and summer day camps. The institution must serve low-income areas or areas with many working mothers. The program offers cash reimbursements of up to 15¢ for each breakfast, 30¢ for each lunch or supper, and 10¢ for between-meal foods. In situations which are termed by USDA to be "especially needy," reimbursement may cover up to 80% of operating costs. Participating institutions must, of course, meet USDA nutritional requirements.

Problems in the National School Lunch Program

Since its inception, the National School Lunch Program has required states and localities to match federal funds, with $3 from states and localities to every $1 of federal money. But, with the implicit sanction of Congress, states were allowed to count children's payments for meals as part of the matching funds, which effectively removed much of the incentive for states to allocate their own revenues to the school lunch program. By 1953, for example, only 10 states were contributing their own revenues other than for administrative expenses. The burden thus fell largely on the children themselves--those who were able to pay full price or at least a reduced price.

The Senate Select Committee on Nutrition and Human Needs estimates that in 1960 the cost breakdown was as follows: federal funds--20%; state and local funds--25%; and children's lunch payments--55%.

Another basic flaw in the 1946 act, according to many school food authorities, was its apportionment formula, a combination of the total number of school-age children in the state and the per capita income of the state. Although this took into account the financial need of the state, it actually led to inequities. The Senate committee gives this example: Two states with similar per capita incomes and an identical number of schoolchildren would get the same amount of federal funds. But if state A had only 25% of its children in the lunch program, while state B could cover 75% of its children, state A could obviously reimburse its participating schools at a much higher rate. "In short," the committee added in a recent report, "the 1946 formula favored a low participation rate."

In addition, Section 32 funds (drawing on 30% of U.S. Customs receipts) were used to purchase surplus goods, causing these problems:

- It was not known what surpluses would be available until they were produced.
- The surplus usually was not a type that children could consume to any greater extent than what was already being supplied by federal sources.
- Since the surplus was only an addition to the menu, schools did not save any money that could have been used to purchase more nutritious foods.

The Section 32 program, school food authorities claim, was quite frankly for the benefit of the farmer, not hungry children. And this farmer-food industry orientation of the school lunch program still persists, many critics contend. One of the most scathing criticisms of the school lunch program was published by Rodney E. Leonard, who served from 1967 to 1969 as administrator of USDA's consumer and marketing services. The thrust of his criticism was that USDA's natural constituency was not needy children, but big farmers and food manufacturers.

Adequate funding has always been a problem, and still is. Whether it has been the fault of Congress or USDA can be argued. Pres. Nixon pledged to eliminate hunger in the nation's classrooms by Thanksgiving Day 1970; yet, USDA under his Administration has been under constant fire by critics who say it has dragged its feet on the lunch program because of budgetary reasons. One controversy revolved around whether USDA had spent all the funds appropriated by Congress, or had declined to spend some of the money allocated for food programs, including school lunches, to help pare the budget deficit.

In recent years, however, Congress has acted to correct some of the most obvious defects of the original program. The state allocation formula has been changed. States are now required to contribute their own revenues. (The 1972 revisions, PL 92-433, require that a state revenue matching requirement be based on the state's use of such funds in the preceding fiscal year.) Restrictions on Section 32 funds have been loosened up. Congress has insisted on the maintenance of the basic contribution of 8¢ for all school meals, plus added help for the free and reduced-price lunches.

Under the revised allocation formula, states and schools are free to expand their programs as much as possible knowing that additional federal assistance will be available to them. Especially needy schools can receive up to 100% of the cost of running their lunch programs.

How We Got Where We Are

Some of the credit for focusing more national attention on the hunger problem must be given to The Other America, Michael Harrington's 1962 book which exposed the fact that millions of impoverished Americans, largely hidden from public view, were getting completely inadequate diets.

Another influential study was Their Daily Bread, a 1968 survey sponsored by five women's organizations--Church Women United, YWCA, National Council of Catholic Women, National Council of Negro Women and National Council of Jewish Women. It pinpointed four inadequacies:

- Although USDA knew that only 18 million of some 50 million eligible schoolchildren were participating in the lunch program, the rate of federal financing rose at a snail-like pace. Many school administrators, rather than face constant worry over the program and an annual fight for lunch funds, chose not to participate at all.

- The matching formula requiring $3 of state and local funds for every $1 of federal "general cash assistance" aid was actually met by children's meal payments. Therefore, when costs could not be met, the price of the lunches had to rise. This caused poorer children to drop out. But those states that did contribute substantially--South Carolina and Louisiana are outstanding examples--found they were able to increase participation phenomenally and, more importantly, to increase the number of free and reduced-price lunches. South Carolina had a participation rate of 73% and Louisiana 61%. Their rates of free lunches were far above the national average.

- The lack of uniform national standards for determining the eligibility requirements for a free lunch created inequity and acted to deny to many children the lunch Congress had guaranteed them.

- The lack of appropriations for nonfood assistance (equipment) resulted in a program of de facto discrimination against the poor. Many slum-area schools did not have the facilities to serve lunches even if money had been available to buy the food.

The main recommendation made by Their Daily Bread was the adoption of a universal free school lunch program, with food becoming an integral and universal part of the educational process.

Other important influences on improving and expanding the school lunch program were the establishment in 1968 of the Senate Select Committee on Nutrition and Human Needs, which held extensive hearings on hunger in America and focused national attention on the problem, and the 1969 White House Conference on Food, Nutrition and Health, directed by Harvard U.'s Jean Mayer.

Money Makes the Food Go Round

Rep. Carl D. Perkins, D-Ky., sent a questionnaire in June 1970 to the state school lunch directors of all 50 states, which for the first time produced some concrete figures on how many needy children qualified for a free or reduced-price lunch. The figure he arrived at was 8.9 million, far above USDA's estimate.

On the basis of the Perkins study, it was estimated that an increase of special assistance funding of $310.4 million, or 230% above the fiscal 1970 level, was necessary. But Congress provided only $75 million, so state directors had to operate within stringent budgetary limitations, and the actual needs of children became secondary. Special assistance funding for fiscal 1973 for free and reduced-price lunches has been set at $587.5 million, far above the Perkins estimate.

One response to the Perkins questionnaire by the Kansas state food director concretely stated the problem: "People are being informed of their rights while there are no funds to finance their demands."

The White House conference's panel on the school feeding programs based its far-reaching recommendations on the premise that "every child has a right to the nutritional resources that he needs to achieve optimal health." It considered the school system to be the institution best able to serve as a delivery system in pursuit of this goal.

The panel also called for a universal free lunch program, with this rationale: Every child is entitled to adequate nutrition, but even adequate income does not necessarily guarantee he will receive it. The school system was felt to be the only instrument that could deliver food to all children.

The most significant short-term recommendations of the panel: a crash program to feed the estimated one million to five million needy children entitled to a free lunch but not getting it; a national standard of eligibility for a free or reduced-price meal; a simple self-certification process free of any humiliating stigma; the development of breakfast programs complementing but not substituting for the lunch program; and a concentrated effort to reach poor urban schools without lunch facilities. At least a beginning has now been made toward meeting most of these goals.

1970 Reforms Follow Citizens' Recommendations

As a result of all these converging influences, Congress made some fundamental alterations in the National School Lunch Act (Public Law 91-248) in 1970. The alterations generally reflected the following six basic recommendations of a Citizens Conference sponsored by the Children's Foundation:

- National minimum standards were to be based on family size and income. States and school districts were permitted to increase the minimum standards, if necessary, in consideration of geographical, social and economic aspects of an area.

- A simple affidavit signed by a parent, declaring a child to be qualified for the program was to be the sole criterion in determining eligibility for a free or reduced-price lunch. Schools were to establish procedures to protect the anonymity of children receiving free and reduced-price lunches.

- Impartial local appeal boards were to be easily accessible to families denied eligibility. The reason for denial had to be clearly stated.

- State educational agencies were required to make an effort to extend the program to all schools.

- A certain percentage of state matching requirements (4% in 1972) had to come from state revenue specifically appropriated for program purposes, exclusive of state administrative costs.

- Nonfood assistance funds had to be concentrated in states with the most needy children and with the most schools without food services.

The recommendations of the conference were "an adequate reflection of what the various House and Senate leaders intended by their efforts to pass and implement Public Law 91-248," the McGovern committee concluded.

It remained, however, for USDA to implement Public Law 91-248 by issuing regulations, the first of which were proposed in July. Final regulations were issued on Aug. 31, 1970, just a few days before the opening of the fall school term, and five months after Congress enacted the law. This delay was criticized by McGovern and others, and the regulations themselves drew heavy congressional criticism as failing to meet the intent of Congress. "Favorable features of the regulations were matched by the provisions hampering full implementation of Public Law 91-248," declared the Senate committee in a 1972 study. Nevertheless, the law represented a positive advance toward the goal of making nutritious lunches available to all children in need.

Every Child Has a Right to School Lunch

One of the most crucial phrases in Public Law 91-248 was: "Meals shall be served without cost or at a reduced cost to children who are determined by local school authorities to be unable to pay the full cost." This language clearly meant that every needy child had a right to a school lunch. Yet millions of needy children still are not getting school meals. Why?

The McGovern committee charged that USDA modified the President's pledge to eliminate hunger in school by declaring that only needy children in schools already possessing the necessary lunchroom facilities--or 6.6 million students --fell within the compass of the pledge. That left out needy children in 23,000 or more schools without such facilities in 1970. By June 1972, about 18,000 schools were still lacking lunchroom equipment.

In an attempt to reach these children in schools without lunch facilities, Congress authorized $33 million for fiscal year 1972 for nonfood assistance --the cost of the necessary equipment. However, the McGovern committee claimed

that USDA requested only $16.1 million. "If the full authorization had been appropriated and renewed for several years, all these schools would have had some type of lunch program by 1974. At the rate sanctioned by the Office of Management and Budget, it will be 1980 before every child in these schools receives the lunch which Public Law 91-248 guaranteed him," the committee said.

USDA officials claim, however, that state usage of nonfood assistance funds for fiscal year 1971 did not support the committee's projections for 1974. In general, says USDA, states used most of these funds in schools that already had food service. For this reason, the Administration submitted in their lunch bill a provision that one-half of nonfood assistance funds be used in schools without food service. The 1972 revisions set new apportionment formulas for nonfood assistance during fiscal 1973-75. Every state will receive a portion of the funds for exclusive use in schools without a food service program.

Further, under the present law, nonfood assistance required 25% matching funds by states and localities. As a result of 1972 legislative revision, however, this requirement may now be met on a statewide basis, rather than school by school. States may waive matching for an especially needy school presently without food service. Many of the schools are outdated inner-city plants, which couldn't meet the 25% matching requirement anyway, according to the McGovern committee report. "Those schools lacking facilities can generally least afford to finance either the full cost or even 25% of it," the committee said.

More Information On Food and Nutrition

Regional Offices, USDA	States Served
Food and Nutrition Service, USDA 707 Alexander Rd. Princeton, N.J. 08550	Maine, Vermont, New Hampshire, Rhode Island, Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, District of Columbia
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THE NUTRITION PROBLEM

"You can't teach a hungry child" is a truism, but one based on more than a decade of careful scientific research. The adverse effect of malnutrition on the learning process has been proved beyond doubt.

Scientists have found that the most critical period for brain development is from the prenatal stage through the first six months or so of life. Severe malnutrition during this period can cause actual brain damage that can be irreversible. Ruth M. Leverton of USDA's research service and others have found that such malnutrition hampers cell division in the brain. Both the brain and head circumference of such children are smaller than normal, and the central nervous system is also affected. The result in small children can be anxiety, irritability, depression, short attention span, mental confusion and mental and physical lethargy.

Joaquin Cravioto, working with children in Mexico and Guatemala, was one of the first researchers to note a correlation between physical stature and early malnutrition. Instead of using the standard IQ approach, Cravioto and his associates used tests that measured the sense of touch and visual integration--the recognition of shapes by touch alone, for example. "If it is recognized that such visual-motor control is essential in learning to write, it becomes apparent that inadequacy of intersensory organization can interfere with a second primary educational skill--learning to write," Cravioto says. "Thus, inadequacies of intersensory development can place the child at a risk of failing to establish an ordinary, normal background of conditioning in his preschool years and at the risk of failing to profit from educational experience in the school years."

Another researcher, Shuell H. Jones of Tulane U., says "malnourished people cannot perform up to their maximum genetic capability. Temporary disability would be bad enough, but there is evidence that a severe nutritional insult suffered in infancy probably will cause irreparable brain damage."

Jones found that students with low hemoglobin levels in their blood--indicating iron deficiency--tended to make lower scores on intelligence tests, and that teachers rated such children as either overactive or listless, as well as inattentive and easily distracted.

But iron deficiency is just one problem. In its most severe form, early nutritional deficiency, particularly of protein, results in the childhood diseases of kwashiorkor and marasmus, both of which are fatal unless measures are taken to improve nutritional intake. Americans usually think of these diseases as occurring only in the impoverished nations of Africa or Asia.

But though they are rare in the United States, they do occur, and hospitals that serve large low-income populations are beginning to identify them. The Colorado Medical Center in Denver reported 19 cases of kwashiorkor and marasmus in infants in a two-year period. That even one case could occur in the wealthiest nation of the world must be considered a disgrace. As Jones summed it up: "Temporary or permanent impairment of learning and performance is a social and economic drain which we can ill afford when our greatest national asset is our human resources."

It might be argued that severe malnutrition in infancy is beyond the scope of a school lunch program. But that is where the problem begins in many cases, and it affects the child's performance later in school. It can lead to a vicious cycle of disadvantaged parents whose children are forced to repeat the pattern because of early malnutrition. One way of getting at the problem is through the Head Start program which, while generally acclaimed a success, is still a long way from being universal. Head Start requires that meals served to preschoolers in the program should provide one-third of the daily recommended dietary allowances of the National Research Council. At the very least, schools can help alleviate the problem of early malnutrition through nutritional courses for 17- and 18-year-old girls who become pregnant. In such programs, the importance of good nutritional practices not only during pregnancy but through the early months and years of the child should be stressed.

Better Nutrition Improves IQ

Studies have long shown that better nutrition can improve IQ. In one study reported in the November 1944 American Journal of Medical Science, I. N. Kugelmass and his associates found this to be true for both normal and retarded children. He divided the children in his study, ranging in age from

Dietary Deficiencies Cause Anxiety

Ruth Leverton lists some dietary deficiencies and their effects on children:

- Lack of thiamine causes anxiety, irritability, depression and sensitivity to noise and pain.
- Insufficient iron results in lowered hemoglobin levels, reducing the capacity of the blood to carry the oxygen needed for normal functioning of the brain.
- Inadequate naicin results in lassitude, apprehension and depression.
- Lack of vitamin B-12 produces mental confusion.
- Too little iodine causes a low basal metabolic rate with physical and mental languor.

2 to 10, into two groups: the malnourished and the well nourished. Each group contained both normal and retarded children. After a period of dietary rehabilitation, the originally malnourished, retarded children gained 10 points in intelligence tests. The normal but malnourished children gained a dramatic 18 points, according to Kugelmass. The group that had been well nourished all along, including both retarded and normal children, showed little change in IQ scores.

Rita Bakan, assistant professor at Michigan State U.'s Center for Urban Affairs at East Lansing, writing in Phi Delta Kappan magazine, summed up the agonizing problem this way:

> The most noxious of poverty's effects is malnutrition and the most important of the causes of malnutrition is poverty. Until this cycle is broken, the success of all our other efforts, such as compensatory education or remedial education, will be limited if not doomed to failure.

She also quoted anthropologist Margaret Mead as saying:

"Human beings have maintained their dignity in incredibly bad conditions of housing and clothing, emerged triumphant from huts and log cabins, gone from ill-shod childhood to Wall Street or the Kremlin--but food affects not only man's dignity but the capacity of children to reach their full potential, and the capacity of adults to act from day to day.... It is true that the starving adult, his efficiency enormously impaired by lack of food, may usually be brought back again to his previous state of efficiency. But this is not true of children. What they lose is lost for good...deprivation during prenatal and postnatal growth can never be made up."

Who Are the Malnourished?

Where do these 1 to 5 million undernourished children come from? (The number of children varies depending on whose estimate you prefer to quote.) Offhand, one would think they are mostly the products of the black ghettos of the big cities. This is true to a large extent, but far from exclusively so. Government studies show there are more white families than black families below the poverty line, though the proportion of poor blacks is much higher in terms of the total population.

Some of the malnourished live in Appalachia, stretching from lower New York State down to northern Alabama, a poverty pocket of immense proportions and largely white. Some are Indians, probably this country's most neglected minority. Some are Chicanos in the Southwest; others are the children of some half a million migratory farm workers who travel endlessly across the land following the picking seasons. Hunger USA, a report published in 1968, focused much attention on this paradox of our affluent society. It was produced by a distinguished "Citizens' Board of Inquiry into Hunger and Malnutrition in the United States." One finding of the report: nutritional anemia, stemming primarily from protein and iron deficiency, is common in 30% to 70% of children from poverty backgrounds--black and white, urban and rural.

Perhaps more astonishing is the fact that the problem is not even confined to the poor: malnutrition is widespread even among the children of America's middle and wealthy classes. In our hamburger-pizza-cola-french fries culture, badly balanced diets can be just as prevalent among kids who always have money in their pockets as among those who have none. Sometimes the parents simply don't know what their children are eating all day, or they don't care.

A statewide study in Massachusetts in 1969 produced these statistics:

- 257,000 Massachusetts children come to school improperly fed.
- 500,000 have an inadequate lunch.
- 64,000 go without lunch entirely.

Reporting on the study, Dorothy L. Callahan of the Massachusetts State Bureau of Nutrition Education and School Food Services wrote: "You would probably decide that these are children from the ghetto sections of our urban areas. But you would be wrong. These statistics are from a statewide nutrition survey conducted among Massachusetts public school children. Poor eating habits were found not only in schools in low economic areas, but also in schools located in our most affluent communities."

Among the things that contribute to poor nutrition even among the affluent children is the prevalence in some schools of vending machines, peddling such fattening and sugar-laden foods as doughnuts, cakes, pies, candy and soft drinks. One food manager moving into a California system decided to get rid of the vending machines, but ran into mysterious opposition and foot-dragging from higher-ups. She finally discovered that the schools were making a tidy profit on the vending machines and were reluctant to give them up. She persisted and the machines were removed, with the result that the nutritious Type A lunch became the standard for the system. However, 1972 revisions to the school lunch act give schools free rein to use vending machines.

Increasingly permissive campus rules also contribute to poor nutrition. Where students are free to leave the campus at lunchtime, candy stores and hamburger stands soon appear to serve them. For those who can afford it, getting away from the school cafeteria and loading up on junk food across the street is a more pleasant social experience. Some school cafeterias also offer these extras--french fries, cakes and desserts--that can be bought as desired. In effect, then, these less nutritious foods are competing with the basic Type A lunch that is also offered. Both the American Medical Assn. and the White House Conference on Children have asked for a halt to sale of these foods in cafeterias. Cutting off access to such "competitive" foods is a major concern of many school officials who are trying to see that all children are properly nourished.

How Schools Combat Poor Nutrition

Some of the major efforts aimed at combatting poor nutrition include:

- The move to extend the National School Lunch Program to all schools and to increase student participation.

- More participation in the school breakfast program, authorized by Congress in 1966.
- Increased emphasis on nutritional education for all schoolchildren.
- Involving the students in menu planning and food preparation.
- Summer breakfast and lunch programs.
- Special milk programs.

Extending the School Breakfast Program

The 1970 revisions to the Child Nutrition Act of 1966 state that school breakfasts should give children a "good start" toward meeting their daily nutritional needs. To meet the cost of school breakfasts, participating schools are reimbursed at a rate of 20¢ for each free breakfast served, 15¢ for each reduced-price breakfast and 5¢ for all others. Reimbursement rates in schools with "especially needy" children may vary; for instance, the school may receive up to 30¢ for each free breakfast it provides and 20¢ for each reduced-price breakfast.

Funding for the School Breakfast Program was authorized by Congress in the amount of $6.5 million for fiscal year 1969, $10 million for fiscal 1970 and $25 million thereafter. The law provides that the state educational agency approve applications from local districts for participation in the breakfast program, according to the following guideline:

> In selecting schools for the School Breakfast Program, the state educational agency shall, to the extent practicable, give first consideration to those schools drawing attendance from areas in which poor economic conditions exist, to those schools to which a substantial proportion of the children enrolled must travel long distances daily, and to those schools in which there is a special need for improving the nutrition and dietary practices of children of working mothers and children from low-income families.

The 1972 revisions will, of course, expand those guidelines to include all interested schools, starting in 1974.

These specifically stated criteria cover the areas of greatest need. In ghetto areas of large cities, the need is most obvious. Many poverty-stricken families can't afford a proper breakfast for their children, or working parents are not around to see that they get it. The result: many youngsters start their school day on empty stomachs. Most children complete more than half of their school day before lunchtime, so that even where a good Type A lunch program is in operation, they start off with a handicap. Teachers and administrators report remarkable improvements--bright eyes, alert minds, enthusiasm, longer attention spans--where otherwise unfed children get a satisfying and nutritionally balanced hot breakfast.

But, as Congress realized when it passed the legislation, it is not only the inner cities that face a breakfast problem. Children in rural areas where centralized schools require long bus rides also need attention. A good example is the Ocosta School District outside of Olympia, Wash. An estimated 95% of the students in the district come to school by bus, and many have to spend as much as one and one-half hours traveling. They leave home by 7 a.m. Many of the children come from families below the federal poverty income level, and therefore qualify for a free or reduced-price breakfast just as they do under the school lunch program.

Another example comes from an urban district, the Nicholson Elementary School in Richmond, Ind., described in Instructor magazine by Margaret Anne Kaiser, a sixth-grade teacher. Nicholson School is in a "low socioeconomic area," and many of the 400 children enrolled were arriving in the morning listless, drowsy, apathetic, tardy--they had either an insufficient breakfast or nothing at all, Mrs. Kaiser said. The school faculty began talking to parents, and got such reactions as: "I can't get Paul up in time to eat breakfast before he goes to school." "Marie has to get breakfast for her sisters because I have to go to work before the children leave for school." "Jack doesn't always get to school on time because I have to send him to the store in the morning."

Mrs. Kaiser reported it took about six months to get a breakfast program going and required a considerable outlay for refrigeration, butter and milk, even though the menus were simple--fruit juice, toast and milk. But assistance materialized from church groups and individuals. Even children worked in the program, proudly wearing aprons made by women of the community.

Tardiness suddenly dropped by 50%. The children--some 150 to 200, or half the student enrollment--eat before the school sessions start, so the program doesn't shorten the regular school day. Each participating student is asked to pay three cents, but no child is refused breakfast because of inability to pay. Mrs. Kaiser concluded that "qualitative programs are often difficult to measure. The faculty feels, however, that students now seem more interested in attending regularly and in learning. The breakfast crowd is more alert and more receptive and cooperative. We think, as one student expressed it, 'we've got a good thing going for us.'"

How To Start the Day

Minimum school breakfast standards required by USDA:

- Half a pint of liquid whole milk, as a beverage or on cereal.
- Half a cup of fruit, or fruit or vegetable juice.
- One slice of whole grain or enriched bread, or the equivalent in biscuits, rolls or muffins.
- As often as possible, a protein-rich food such as an egg, an ounce of meat, poultry, fish or cheese.

Some Basics of Nutrition Education

Many school authorities place great emphasis on nutrition education courses and programs for both the poor and the affluent. Some see the school lunch program as a way of hooking the two together.

USDA's Ruth Leverton says: "Specialists in the fields of nutrition and education have formulated some basic concepts for nutrition education. These are intended to serve as guidelines for teaching nutrition and for developing sequential courses of study for nutrition and health in elementary grades":

1. Nutrition is the food you eat and how the body uses it. We eat food to live, to grow, to keep healthy and well, and to get energy for work and play.

2. Food is made up of different nutrients needed for growth and health:
   - All nutrients needed by the body are available through food.
   - Many kinds and combinations of food can lead to a well balanced diet.
   - No food, by itself, has all the nutrients needed for full growth and health.
   - Each nutrient has specific uses in the body.
   - Most nutrients do their best work in the body when teamed with other nutrients.

3. All persons, throughout life, have need for the same nutrients, but in varying amounts according to age, sex, size, activity and state of health.

4. The way food is handled influences the amount of nutrients in it, its safety, appearance and taste. (Handling means everything that happens to food while it is being grown, processed, stored and prepared for eating.)

This, then, is the big picture. But how does a school put the concepts to work and get them across to children? The American School Food Service Assn. (ASFSA), the major school lunch organization, says an adequate nutrition education program should provide:

- A sequential curricular plan of nutrition instruction for pupils from kindergarten through high school.

- Innovative curricular materials.

- Nutrition counseling with parents and health personnel.

- Continuing nutrition education for teachers and other school personnel through regional and local workshops.

But putting all this into practice is easier said than done. Jean Mayer, the eminent Harvard U. nutritionist, has urged that states require nutrition courses in public schools, particularly at the high school level. But other authorities urge that nutrition education start at the earliest elementary level, because a child's eating preferences are fairly well set early in life.

Adding Nutrition to the Curriculum

In The School Administrator and the Food Service Program, published by the National Assn. of Elementary School Principals, John N. Perryman suggests a variety of ways nutritional education can be worked into the school curriculum. He says, for example, that the school lunchroom "should be a living laboratory where pupils can practice desirable food and health habits...."

Perryman also suggests that nutrition guidance be cranked into many subjects such as social studies, art, English, science, health and arithmetic:

- Students could write English compositions about food and nutrition problems, visit the cafeteria kitchen to see how it works, learn proper letter-writing form with invitations to parents and teachers for lunch.
- Menus could be used for spelling or reading classes, and even foreign phrases on menus might introduce elementary students to a foreign language.
- Recipe amounts, handling of money, purchasing of food in quantity could be worked into arithmetic lessons at the elementary level.
- Posters portraying the ingredients and value of a Type A lunch could be assigned to students in art classes.
- A nutritionist could give a talk on the "basic four"--dairy products, meat, fruit and vegetables, and bread and cereals. The youngest schoolchildren could be taught to identify which foods fall into which group.

At Catalina School in Phoenix, Ariz., a "multisensory" nutrition course, including feeling, seeing, smelling and tasting food, was tried out on first graders. The approach included songs, plays, films, food models and real foods to teach the youngsters the "basic four" and their importance to health. At the end of the course the first graders prepared breakfast in the cafeteria for parents.

The Dairy Council of California, a trade group, sparked new interest in nutrition education several years ago when it began working with the U. of

Snow White Thrives; Snowball Gets Rickets

An imaginative effort to show students the effects of malnutrition is used in Gates Elementary School, San Antonio, Tex. A six-week demonstration was set up to allow students to see how deficiencies in protein, calcium and vitamin D could affect the growth of two white rats named Snowball and Snow White. Snow White got a balanced diet--a Type A lunch, in fact. Snowball was deprived of dairy products. "Even after one week," said Cora Schevchuk, the district's dietician, "the experimental rat was already showing a bad disposition, and will eventually develop calcium and vitamin D deficiencies and get rickets." Fourth-grade science students conducted the experiment, but the whole school saw the results of the project during lunch periods.

California at Los Angeles to develop a curriculum. They came up with a program that included teacher training workshops, teacher resource materials and student educational materials. The program stressed behavioral objectives (eating habits) and an instructional model devised by UCLA Prof. W. James Popham. "Together, these two concepts allow the Dairy Council to guide the teacher through a training course," according to a Dairy Council spokesman, Earl Parker. "Following training, the teacher practices these concepts in the classroom to teach nutrition in a manner that can--and does--change children's behavior (eating habits). And, the education package shared with teachers makes nutrition fun."

Last year the Dairy Council trained some 11,000 elementary school teachers in this curriculum, and Parker says typical responses were: "What was once a dreary subject is now exciting." And, "Can you hold these workshops for all my elementary teachers in the district?"

From school food executives, Parker says, he got comments such as "The kids are eating better in the cafeteria" and "I don't throw away nearly as many fruits and vegetables this year."

Taking another approach, USDA and the New England State Educational Council are jointly producing a 10-program educational television series on nutrition aimed primarily at school food service personnel. The series will stress nutritional requirements and improvements of children's diets as well as the importance of "creating a fresh and relaxing atmosphere at mealtime."

Involving the Students

More and more effort is being expended by school food authorities on getting students actively involved in the school food program, for instance, by seeking their advice on food choice and menu planning. Food service officials believe their efforts are paying off. Both students and food service administrators learn from each other. But it is important that students' opinions are given real weight.

For several years Milwaukee has been encouraging this two-way interaction. A school lunch committee of students meets regularly with the district's food service division officials. Thomas J. Farley, director of the division, says it has accomplished two things: "First of all, there is now a recognized direct route of communication between the students and those who plan the menus. Second, a vehicle was found to explain to our clientele the goal of school lunch and our willingness to satisfy their needs within the existing framework of school food service."

"Most of us, of course, understand that it is poor policy to serve food with a low degree of acceptability," he adds, "but there is much to be learned from customer satisfaction." Significantly, the food service staff agreed not only to exchange opinions with the student committee but to go along with a number of its recommendations. Monthly menu changes following on the heels of these meetings allowed the students to feel they were accomplishing something, and they could report back concrete changes to their fellow students. "In Milwaukee the students speak for themselves," Farley says. "They want attrac-

tive, balanced meals built around their favorite foods. They definitely have not demanded the hamburger-hot dog-soup thing that so many adult critics have supposed was popular. What is even more evident is that student requests are much more reasonable and well thought out than the criticisms of adults who have at times professed to speak on their behalf."

Similar experiments in researching student tastes are taking place all over the country. In Portland, Ore., the public schools even used a taste-testing panel of 10 elementary and secondary school students to decide which of three wholesale bidders should get the school district contract for 23,000 pounds of fish destined for consumption as fish sticks in 111 city schools.

Nutrition in the Summertime

Summer feeding programs, which USDA calls the Special Food Service Program for Children, started as a three-year pilot program in 1968. Pres. Nixon asked Congress to provide an additional $25 million for a total of $50.5 million for fiscal years 1972 and 1973 to expand this program of feeding needy children in the summer. Program funding for fiscal 1973 is set at $74.0 million, $50.6 million of which is for summer feeding.

Eligible for participation are public and private nonprofit institutions. In-residence institutions are not eligible. The public schools are not usually involved in summer feeding efforts, although they are frequently in the best position to help the programs succeed. They could help by sponsoring feeding programs or by providing meal service through contracts and by providing needed facilities. Realizing this, Congress added to the 1972 revisions a provision that summer feeding programs utilize school facilities to the maximum extent possible.

Obviously, school food service executives are also in a position to lend much expertise and aid to such ventures. ASFSA has urged its members to commit themselves to helping summer food programs. As Mrs. Elsie King, director of school food services in Tucson, Ariz., said: "Hunger does not take a vacation --children from every part of our nation are still in need of food. Perhaps the need is even greater during the summer when breakfasts and lunches are not available at school. We, as members of ASFSA, have been concerned about this problem of hunger and malnutrition, but many of us are still noncommittal when it comes to action; we have not yet accepted the responsibility of putting action into words."

The Milk Program: Still Going On

Federally subsidized milk programs, dating back to 1940, became known as the Type C lunch. But with the 1946 act, milk programs in effect were merged with the National School Lunch Program. As funds became available for Type A lunches, most schools discontinued the Type C milk-only program. But, in 1954 Congress attempted once again to stimulate milk consumption and decided to reimburse schools for milk served above and beyond the Type A lunch requirements. In 1966 the special milk program became part of the Child Nutrition Act and is currently authorized at more than $100 million a year.

HOW STUDENTS PAY

After more than 25 years in the school lunch business, the federal government is pretty good at it. The basic 1946 law has been amended many times and, hopefully, each time improved. It has become more sensitive to humane considerations over the years--some of the most stringent provisions now are in the areas of protecting children from being singled out by their schoolmates as too poor to pay for breakfast or lunch and in making less demeaning the application a parent or guardian must sign to have his child qualify for free or reduced-price meals.

The bookkeeping involved in free and reduced-price meals, not to mention the mechanics of getting a child through the lunch line without tipping off his or her schoolmates, have been described as administrative nightmares by many school officials. Hence, the current push for a universal free lunch program in which every schoolchild would be entitled to the meal.

Proponents of a universal free lunch program say it could end the administrative nightmares in one swoop. USDA does not agree. "It's unlikely that an increase in federal funds would result in less federal involvement in the program," one USDA official said. "Under bills which have recently been proposed, the federal government would be picking up most of the free lunch tab and, therefore, would not be inclined to reduce reporting requirements."

Meanwhile, school systems must cope, and they do. To help them, USDA's Food and Nutrition Service offers a "Sample Policy Kit on Free and Reduced-Price Lunches," one of a number of aids the service provides on request. The kit deals with various aspects of school food service, from menu planning to food cost control guides. (Write to: Herbert D. Rorex, Director, Child Nutrition Division, U.S. Dept. of Agriculture, Washington, D.C. 20250.)

Who Is Eligible?

The secretary of agriculture sets the minimum eligibility standards for poor families that must be met by a participating school system. But a school system may choose to make the standards more generous if it supplements the base funds, and many do. So long as it meets USDA's criteria in administering the program, a school system can go as far as it wishes or can afford in developing eligibility standards for its food program.

As of July 1, 1972, the federal government set the poverty income level for a family of four at $4,110 a year. This basic standard is used for com-

puting eligibility under all kinds of poverty programs, such as food stamps, welfare benefits and other programs including school lunch. The standard is adjusted each year to meet the rising cost of living. USDA's eligibility table under the National School Lunch Act is as follows:

Income Poverty Guidelines, Fiscal 1973

48 States, Washington, D.C., and Territories

Family Size	Guidelines FY 1973	Guideline When Increased By: 25%	50%
1	$2,130	$ 2,660	$ 3,190
2	2,790	3,490	4,180
3	3,450	4,320	5,170
4	4,110	5,140	6,160
5	4,720	5,900	7,080
6	5,330	6,660	8,000
7	5,880	7,350	8,820
8	6,430	8,040	9,640
9	6,930	8,670	10,400
10	7,430	9,290	11,150
11	7,930	9,910	11,900
12	8,430	10,530	12,650
Each additional family member	500	620	750

Source: U.S. Department of Agriculture

Note: Separate guidelines are in effect for Alaska and Hawaii.

Eligibility Rules for a School Lunch Program

USDA requires that schools comply with the following basic operational rules upon entering the school lunch program:

- A school must operate the food service for all children without regard to race, color or national origin.
- A school must establish its policy and procedures for free and reduced-price lunches and have them approved by the state education agency.
- All children from families living below the federal minimum poverty guideline must receive free lunches. With the approval of the state

education agency, the school may raise its poverty limit by an additional 25% of the federal guideline for free lunches and by an additional 50% for reduced-price lunches.

- A school must give public notification of its policies.
- A school must send lunch applications to all parents of schoolchildren.
- School authorities must accept the applications at face value and act quickly on them. If school authorities suspect that the information on an application is false, they must accept it anyway. A fair hearing procedure may be initiated if either school officials or the family become unhappy with the situation.
- A school must not discriminate against children who are receiving free or reduced-price lunches.
- A school must serve meals meeting the nutritional requirements established by USDA.
- A school must operate a nonprofit food service.
- A school must keep necessary records.

USDA's Food and Nutrition Service provides in the sample policy kit the following additional guidelines for schools about to enter into a lunch program:

1. The letter to parents announcing the school's free and reduced-price lunch policy must include the complete criteria used by the school to determine eligibility for free and reduced-price lunches. This includes the income scale used by the school to determine eligibility. Merely including USDA's guidelines in the letter to parents does not fulfill the requirement for inclusion of the school's income criteria.

2. The school's eligibility standards must include as a minimum the three factors of family income, family size and the number of children in the family attending school or preschool or day care centers. The factor of the number of children attending school need not be used if only free lunches are served to all children determined to be eligible. But this factor must be considered when reduced-price lunches are provided.

3. If the school determines that certain children automatically meet its eligibility standards for free and reduced-price lunches, the notice to parents must include a statement to that effect and must state that, accordingly, no applications are necessary for that group of children.

4. If all children in the school meet the school's eligibility standards and therefore do not need to submit applications, the notice to parents should state that all the children are eligible.

5. A school may choose to serve free lunches to all children meeting its standards for free or reduced-price lunches. In this case, the school need not provide reduced-price lunches.

6. If the parent will not or cannot apply for free lunches, the school may authorize them for the children on the recommendation of a teacher, nurse or other school official. "In cases of known or suspected need where the parent does not apply, the school may authorize the child to receive free or reduced-price lunches," USDA says.

7. Application forms for parents to fill out when requesting free and reduced-price lunches for their children "may not include a statement that the applicant authorizes subsequent checking into his reported income." They may not request the applicant to inform the school if his income changes and may not ask where family members are employed.

8. The school food authority may develop its own collection procedures so long as they protect the anonymity of the children receiving free or reduced-price meals. Not acceptable: a collection procedure under which paying children use cash in the lunchroom, and free or reduced-price children are simply passed through the line, either recognized by sight or identified by a number or other means. This method would identify the needy children and would violate federal regulations.

9. If different collection methods are used in different schools within a system, the system's policy statement must list the different collection methods, but it need not list which schools are using which method.

10. Even if a school employs and pays student helpers, the free and reduced-price lunchers "are not to work in any capacity except at the express request of the parents. Parents are to understand clearly that their children would get a free or reduced-price lunch even if the children did not work."

Application for Free or Reduced-Price Meal

The application form sent home by school food program administrators should request only the information needed to determine which children are eligible for free or reduced-price meals. It need not be complicated and should not, in any way, embarrass or demean the parent or guardian who has to fill it out.

One school district uses a form which requires the listing of family members and relationship (son, daughter, foster child, etc.), though providing that "a 'family' member means anyone living in your home for whom you pay all expenses."

The same district breaks down the "family income" portion of the application by requiring a listing of salary, wages, commissions, self-employment earnings, welfare payments, social security, pensions, retirement, annuities, social service allotment and other cash income. (Under federal law, "family income" means gross income--the total before any taxes or other deductions.) Not all districts require separate listings of each source of family income. Some do, figuring that it is easier for a family to compute its income if it knows what "income" consists of. Other districts require only a total, reported as either a yearly, monthly or weekly amount.

USDA officials advise that the application should be kept as simple as possible. In many cities, they say, social workers are assigned to help fill out the applications for parents who do not understand the forms or who have a language problem. A sample form, suggested by USDA, is shown on page 31.

How To Collect the Money

Whether a student pays full price or receives a meal at a reduced price, the school must set up a collection system. USDA recommends these methods:

For Larger Schools

1. Students go during the day to the school office, cafeteria, nurse's office or other suitable place. Those who pay full or reduced price turn over cash and are issued a numbered ticket or token, on either a daily or weekly basis. Schools are encouraged to give discounts to make buying weekly tickets more desirable. Those receiving free lunches are given their ticket or token, identical to the others except for a code number known only to authorized school personnel and used for accounting purposes.

2. The homeroom teacher gives each child an envelope for daily or weekly payments. The pupils return the envelopes with their payment for full

Thou Shall Not . . .

One of the most basic procedures school systems must follow in administering a school lunch program concerns protecting the student from whatever social stigma might be attached to eating a free or reduced-price lunch. A school system can provide this basic assurance to the student if it carefully and conscientiously adheres to the following "commandments" of USDA's Food and Nutrition Service:

1. The food authority "will take action necessary to insure that the names of children eligible to receive free or reduced-price lunches shall not be published, posted or announced in any manner."

2. There shall be "no overt identification of any such children by use of special tokens or tickets, or by any other means."

3. Further assurance must be given to parents of children participating in the program that the children shall not be required to:

   - Work for their lunches.
   - Use a separate lunchroom.
   - Go through a separate serving line.
   - Enter the lunchroom through a separate entrance.
   - Eat lunch at a different time.
   - Eat a different lunch from the lunch sold to children paying the full price of such a lunch.

or reduced price, or empty for a free lunch. The homeroom teacher or the school office then issues tickets or tokens, again identical except for the secret code number.

3. Students who pay full or reduced price buy weekly tickets at a designated place and at varying times, to preclude the formation of waiting lines. The school office mails weekly tickets to the families of the free lunch children. Again, a code number is used.

For Smaller Schools

1. An all-cash system may be used, with needy students given the money for lunch. The school officials must insure that the money is used to buy lunch, and that it is issued in such a manner that the needy student will not be identified.

2. All students either pay cash or charge their lunches. Those charging either full or reduced price are billed each month, while free lunch students receive no bill. To identify students, a school identification card may be shown to the cashier. The Food and Nutrition Service warns that if this method is used, it is necessary that an adequate number of paying students take advantage of the charge system. Otherwise, the only ones who would be charging their meals would be the free lunch students, who could thus be identified.

Problems and Variations in Collecting Systems

A lunch program with three categories of children--full price, reduced price and free--obviously presents bookkeeping and clerical problems. If a cash system is used, the kids sometimes "forget" to bring their lunch money, or use it for other purposes. If it is a weekly punch card system, they may forget to bring their card and be forced to cadge a punch from a fellow student's card. One way to get around a lot of these problems, and to reduce costs, is the "pay now, eat later" plan used by the Tipton, Iowa, schools.

The prepaid plan, called the Agreement Lunch Plan, was set up in Tipton largely for financial reasons. Frances Crawford, Tipton's director of school food services, described its many pluses and some minuses: The Tipton schools were faced with rising costs, and the alternatives were to increase lunch prices or find a way to reduce costs. Under Tipton's previous ticket system, school lunch participation fluctuated as much as 15% a day. But under the agreement plan, it rarely varies more than 2% a day. This allows more efficient purchasing and production and more efficient use of labor hours.

Instituted during the 1970-71 school year, the plan was presented as a choice. Those who chose to eat at school every day were offered a special low rate through prepayment. Those who chose the freedom of selecting which days they would buy lunch paid a higher price. Parents could pay in advance by the month, quarter, semester or whole school year ($54 in 1971). About 90% of the parents whose children ate at school opted for the agreement plan, and it soon was popular with the children. Mrs. Crawford lists these benefits:

- The plan eliminated any possible discrimination between paying and free or reduced-price students. Everyone in the plan has a number and goes through the line. No cash or tokens are needed.

- It cut clerical time by eliminating the selling and handing out of tickets and the handling of large amounts of money each week in each school.

- The money prepaid by the parents went strictly for lunches. The children could not use it for other purposes because they never had their hands on any cash.

- The lunch line moved more quickly and smoothly because there were no lost tickets, no hunting through pockets.

- The children's acceptance of the lunch improved. Since they regarded the lunch as "free," there was less bellyaching about the menu.

- The system cut down the problem of students going off campus for snacks instead of eating the school's Type A lunch.

Are there any problems in the "pay now, eat later" plan? Mrs. Crawford listed three factors she said "could make or break the plan":

- The need for absolute accuracy in recording payments and in keeping records of when payments are due. (Mrs. Crawford set up a careful accounting system, using a ledger to keep track of agreement plan students.)

- The collection of payments on time. "We encourage this by sending calendars to each family with dates when payments are due," she says. "We also telephone or send notes home to the few who do forget. But, on the whole, the payments come in very well. Parents do not want to lose the special reduced rate offered by the plan."

- The importance of maintaining good public relations and customer satisfaction.

Children Who 'Forget'

What does a principal do about the child who "forgets" lunch money or brings a note from his mother that he will pay later? One elementary school decided to trust the child and try to get the money later. But the cafeteria ended up with a $400 deficit. So the school instituted a "no trust" policy. If the child arrived with no money, he was given bread and butter and milk only. Obviously, such a policy was open to the charge that it was inhumane, and the dilemma was submitted to a qualified panel of outside experts.

The three-member panel agreed that putting a no-pay child on bread and butter was not a good policy. One member suggested that consideration be given to "why the cafeteria was established in the first place, as a money-making enterprise where the (school) board looks at a profit and loss statement, or on the premise that children can perform better if they are not hungry."

Another suggested that the PTA board set aside funds for emergency cases, so the principal could properly care for indigent children.

The third panel member said his school had a small loan fund handled by the cafeteria supervisor (a teacher). When a pupil forgot his money and came to school without a lunch bag, he was permitted to borrow enough money to buy one lunch. He had to pay the loan the next school day. If he didn't bring the money for payment of the loan and also forgot his lunch money again, he was still able to get another loan. Very seldom, he said, was it necessary to call on the principal to assist in getting a loan repaid.

Other panel suggestions:

- "If parents persist in not meeting their obligations, social workers from the school or community could be involved."
- "The paramount consideration in this problem is the hungry child; the financial profit or loss is secondary. If the cafeteria must operate with no deficit, the school should take steps to have its funds supplemented by the PTA, social or welfare agencies, or another sponsoring agency."

More Variations and a Novel Approach

Bartlesville, Okla., is another school system that has found the prepaid lunch plan effective. At the first of each month parents receive a bill for the total cost of the number of meals their child will be eating in the cafeteria that month. If the students miss more than three days during the month, they get credit for the missed meals. Parents of children receiving free lunch, of course, do not have to send in any payment.

Since Bartlesville has four central kitchens to prepare meals for 14 satellite schools, the pay-in-advance method is especially suitable. With lunches paid for on a monthly basis, school food service administrators can determine within two or three meals the number of trays to send to each school.

The Lookeba-Sickles School District in central Oklahoma uses a slightly different approach. Students sign up for breakfast and lunch as they file through the serving line. Each month the school secretary adds up the number of meals each student ate during the month and bills paying parents accordingly. Since everyone who eats signs the register, no one knows who gets a free or reduced-price lunch. Lookeba-Sickles has an average daily lunch participation of more than 90%. Teachers are delighted with such systems: Not having to handle lunch tickets or tokens saves many hours of classroom time each month. And with no tickets, the lunch line moves faster.

Duncan, Okla., has added a unique variation: it uses "voting booths" for its junior high school students. Just as the voting booth keeps a citizen's ballot secret, the school voting booth conceals whether the student buys his ticket or gets it free. With the voting booth method, only the person selling the ticket and the student receiving it need know whether the student pays full price, pays a reduced rate or gets the two-week ticket free.

APPLICATION FOR FREE OR REDUCED PRICE MEAL

Parents: If you want free or reduced price lunches for your children, fill out this form and return to the school office.

Date _____

Names of children for whom application is made:

_____

_____

_____

Name and address of parent or guardian:

_____

Total number in family: _____

Total family income before deductions (include welfare payments, wages of all working members, pensions, social security, and all other income).

Yearly _____ Monthly _____ Weekly _____
(Fill out one)

We will also give consideration to hardship factors. If your family is having such problems and the payment for lunches is a money problem, please feel free to apply for free or reduced price lunches for your children. Write here what your problems are:

_____

_____

I hereby certify that all of the above information is true and correct to the best of my information and belief.

_____
Signature of adult family member

FOR SCHOOL USE ONLY

Date: _____

Approved: _____

Disapproved: _____

Free: _____

Reason: _____

Reduced price: _____

_____

Source: U.S. Dept. of Agriculture

FEEDING SYSTEMS—OLD AND NEW

The traditional method of feeding schoolchildren at lunch is the "on-site" arrangement, with a fully equipped kitchen in each school, preparation and cooking of bulk foods in that kitchen, a specially set-aside cafeteria with hot tables and other serving equipment and eating tables, permanent hardware--trays, knives, forks, spoons, bowls, etc.--and dishwashing equipment. This kind of traditional installation has to be built into a school or onto it, adding to capital plant expenditures. It requires a separate labor force for each school.

New methods are challenging the traditional one. One alternative now in use in many schools is "satelliting." Food is prepared in a central plant and usually pre-portioned, often in disposable plastic containers that eliminate dishwashing. It is then transported, either hot or cold, to many schools in the area. This central processing of food bypasses the cost of setting up a self-contained kitchen in each school. Simple and relatively inexpensive refrigerators and convection ovens to reheat the delivered food can be housed in an amazingly small space--usually less than 100 square feet. All-purpose rooms, classrooms and even hallways can be used as dining areas--a potent consideration in outdated, turn-of-the-century central city schools that simply cannot be converted to on-site feeding operations. Labor costs obviously are less, because fewer personnel are needed at each school, and the added efficiency of central preparation in large quantities cuts the cost per school.

Yet many food service officials cling to the traditional concept for a variety of reasons: in rural or small town areas, transportation problems and the smaller size of the total operation make satelliting impractical; a school principal can retain direct control over the cost and content of the meals; the quality and acceptance of the food may be higher, with less of an assembly line aura; and the labor payroll may be a boon to the surrounding community. So no hard and fast rules and recommendations are possible. Each community and school system may have different problems, for which different solutions may be applicable. And even a city the size of Philadelphia, which has gone in heavily for satelliting in recent years in both public and parochial schools, still mixes the two approaches, with many schools retaining their self-contained kitchens and feeding facilities.

How Satelliting Works

Satelliting has many variations. In large cities, central manufacturing kitchens may be practical. These kitchens purchase food in bulk. They process and manufacture it and store it at one location--the distributing point

to smaller satellite kitchens where final preparation is done. Los Angeles reports good results with this method. At its central manufacturing kitchen, employes prepare all the meat products, such as beef patties, meat loaf and salisbury steak, as well as sauces, dry mixes, pie and cookie dough and the like for use in hundreds of schools. The school district saves 800 man hours per day with this type of operation. However, some experts believe it is uneconomical to set up such a central kitchen for fewer than 20 schools.

Food may also be purchased in prepared form from commercial companies. And recent amendments to the law allow the use of commercial food contractors, who take over the entire preparation and delivery of the meals.

The satellite kitchen may serve the students in the school in which it is located, as well as preparing meals for delivery to other neighboring schools, where the children may eat in classrooms, auditoriums, all-purpose rooms or whatever is available.

Food may be pre-portioned or delivered in bulk. Bulk service means lunch components are prepared in large quantities for portioning at the receiving school. The food may be delivered hot, chilled or frozen. If it is delivered hot, rolling cabinets usually are used, which keep both hot and cold temperatures constant during transportation. When they are rolled into the schools they can be plugged in again. The server then takes a compartmented tray from the cart, dishes up the food from the hot and cold sections of the carts, and hands it to the child. Milk usually is delivered separately to the schools and can be picked up by the student at a cold cabinet. After eating, the children scrape their trays and return them to the central kitchen for washing and sterilizing.

In another approach, only the hot and cold food carts come from the central kitchen. Tray carts and tableware are stored and washed at the receiving schools, with only the food carts going back to the central kitchen. This method requires garbage disposals and dishwashing machines at the receiving schools. Still another variation: only part of the menu, generally the hot food, is sent from the central kitchen and the rest of the meal is prepared at a satellite kitchen.

Pre-portioned service means individual meals are packaged at the central source. They may be delivered hot, chilled or frozen. Here are several typical methods of delivery:

- Twin pack--A combination of hot and cold pre-portioned Type A lunch components. The hot pack contains the entree and one vegetable which are normally wrapped in aluminum foil or special plastic film. The hot pack is reheated at the receiving school, so it may be delivered either hot or cold. The cold pack contains the rest of the vegetable-fruit requirements for a Type A lunch, as well as the bread product, butter and disposable eating tools. Usually the pre-portioned lunches are refrigerated at the receiving school until lunchtime, when the simple and relatively inexpensive convection ovens are used for reheating.

- Polystyrofoam compartment tray--The hot Type A components, pre-portioned into disposable, compartmented trays, are sealed with a lid and placed

in either insulated or electrically heated containers for transportation. The receiving school serves the hot lunches directly from the containers.

- Tray pack--Generally chilled, prepared Type A components are pre-portioned and sealed into a tray with a plastic film wrapping, to be refrigerated at the receiving school until serving.

- Box or bag lunch--This lunch contains cold Type A components, with each item individually wrapped in moisture-proof paper or a plastic container with a tight-fitting lid. Disposable eating utensils are usually wrapped as a unit and included in the package.

A Model Satellite System: Rowland School District

The latest hardware and handling techniques can shave costs in a more conventional system, such as the centralized satellite operation used by the Rowland School District, 25 miles east of Los Angeles. Careful planning was required for the changeover from on-site kitchens in each of Rowland's 14 elementary, three intermediate and two high schools. The change was supervised by Mrs. Ruth D. Richard, director of food services.

Opened in 1970, the Ruth Richard Food Center--planned to the last detail for the most efficient operation, layout and food handling techniques--has become a model for other school districts across the nation. The center is designed for speedy operation--from the reception of goods through storage and preparation to serving. Optimum use is made of space and labor.

Some of the center's features:

- All utensils, tables and counters are stainless steel for easy cleaning, with water and steam hoses conveniently spotted throughout the 12,000-square-foot building.

- Six movable tables, with lockable wheels, are of the same height as the work counters, so they can be used to add width or length or to change the shape of the counters into an L or U as needed.

- The floor level is raised to that of the receiving dock so goods can be rolled directly from trucks to work floor.

- An efficient bake shop is included. It was planned to make full use of available government commodities such as flour, shortening and butter.

- Timers and automatic controls are included wherever feasible.

- A vegetable table has trimmers and corers mounted over a disposer, so that the waste from lettuce, cabbage or celery can be dropped into it without handling.

- A variable speed mobile conveyer is used in loading hot food carts and in preparing sandwiches. It can also carry entrees from the assembly center to the ovens.

The Ruth Richard Food Center pays close attention to sanitation, safety, and avoidance of cross traffic and congestion areas. It has been cited as an example of what advance planning by a skilled food executive can do.

Innovations in Feeding Systems

To meet special problems, such as old schools with no lunch facilities, several other imaginative innovations are proving successful. One is the "cup-can" approach, first tried on a large scale in Philadelphia parochial schools and now spreading to other parts of the country.

A cup-can is an individual hot serving of such main-course entrees as tuna and noodles, chicken stew, beef stew, franks and beans, spaghetti and meat balls. More than a dozen different entrees are now available. Originally developed for factory and office vending machines, the cans come with a pop-top, pull-off lid, and the entree can be eaten directly from the can with a plastic spoon. Adapted for schoolchildren, these cans can be heated at each school in a special machine with a capacity of 120 to 150 cans.

Another innovation is a butter biscuit, with the butter already baked in, fulfilling that part of the Type A requirement. Taken together, a cup-can, butter biscuit, fruit and milk fully meet the USDA Type A lunch standards. The cup-can development is particularly helpful for inner-city schools with neither kitchens nor cafeterias--but lots of hungry kids.

"Thanks to our new cup-can program, any school can serve a hot noonday meal, without an array of expensive kitchen equipment, kitchen personnel or even cafeteria space," said Kermit Bird, head of the nutrition programs group of USDA's Food and Nutrition Service. But the real credit for cup-can must go to the Archdiocese of Philadelphia, and particularly to Father Donald V. Heim, a parish priest who also was food service director for the archdiocesan schools.

Frozen Solutions to Feeding Problems

Many of the bigger cities are turning increasingly to frozen "efficiency" foods supplied by commercial food processors, purchased in carload lots and specified to meet Type A requirements.

New York City, with more than 1,200 schools and serving some 400,000 lunches daily, relies heavily on frozen products, with government commodities supplied under the National School Lunch Program sometimes going directly from government warehouses to the processor's plant. New York also has special problems, such as traffic-clogged city streets that can delay or block daily delivery to schools from the central commissary, so it tries to maintain a week's supply of food in each school's freezer.

The thrust of the New York approach is to take the school system, as far as possible, out of the food preparation business.

Philadelphia Initiates Cup-Cans

The parochial school system in Philadelphia rivals the public schools in size, but does not have access to public funds except for special programs like school lunches. In 1970, archdiocesan officials realized that they had a severe nutrition problem in their inner-city schools and that something had to be done about it--immediately.

Father Heim got the assignment and began casting about for help. One source was the Cardinal's Commission on Human Relations. Another was the Academy of Food Marketing at Philadelphia's St. Joseph's College. After consulting with the Campbell Soup Co. in neighboring Camden, N.J., Father Heim and academy officials found that a feasible cup-can system could be worked out with minimum capital and labor outlay. Then they went to USDA's Child Nutrition Division.

The nutrition division was skeptical, according to George A. English, school marketing development specialist for the Campbell Soup Co. "But together with the academy people we presented the program to USDA officials. And we presented it for what it is--an acceptable answer to meeting a problem of nutrition now, without the need for the usual amount of space, people and equipment. It could, has and can be set up in any school virtually in 72 hours."

The Child Nutrition Division agreed to test the idea with cash reimbursement. St. Anthony de Padua School, with about 250 racially mixed pupils in grades 1-8 in a poverty area of South Philadelphia, was chosen as the prototype.

St. Joseph's Academy loaned its child nutrition program coordinator, Patrick Temple-West, to help Father Heim. Temple-West said: "The test had four objectives: to determine if children would eat from a can, if they liked the food on a continuing basis, if individual schools could manage the program on their own and if prices could be maintained at a reasonable level."

The cost was about 40¢ per meal and students were asked to pay 15¢ if they could afford it. The cup-cans, supplemented by fruit and juices (which were new foods to some of the children), bread and butter and milk, were an instant and continuing hit with the children. Disposal problems were minimal.

St. Anthony's found it could manage the program with as few as two volunteer mothers to set up tables and a serving line. The youngsters sat on folding chairs in the gymnasium-auditorium. A local dairy provided a milk cooler. The cup-cans were heated in two portable ovens costing approximately $100 each and operating on regular 110-volt current. "Frankly, I'm amazed at the way the children seem to like the food," said Henry S. Rodriguez of USDA's Child Nutrition Service.

Full USDA approval followed. Test programs were approved for government support in California, Texas and New Jersey. Summing up the successful experiment, John Cardinal Krol of the Philadelphia archdiocese said: "This means that 28,000 children in 55 inner-city schools may have a hot lunch--every day--which meets the highest nutritional requirements of the U.S. Dept. of Agriculture."

A Step Beyond Efficiency Foods

So-called efficiency foods have been with us a long time, including precooked canned goods, brown-and-serve rolls, cake mixes, frozen foods--in fact, all foods that have been partially or wholly prepared by the manufacturer to reduce or eliminate labor in the kitchen. Food technology is well beyond this stage now and is moving rapidly into a Buck Rogers-ish field called "engineered foods."

One example is a breakfast product that is particularly useful in school breakfast programs where there are no kitchens or serving facilities. Called Astrocake or Supercake, this engineered food is a fortified cake with a cream filling, containing as much vitamin C as an orange, and with protein bread, fruit and milk components that meet USDA standards for school breakfasts. The children can eat it at their desks. However, some nutritionists question whether "cake for breakfast" is a good idea, feeling it might influence children to think that all cake is equally nutritious.

Now growing in use are such things as TVP--textured vegetable protein. These concentrated foods include CSM (corn-soya-milk) and WSB (wheat-soya-blend) that have been used in some U.S. overseas programs such as Food for Peace. Now USDA has approved two such products for school lunches--TVP and fortified enriched macaroni. Regulations call for no more than a 30-70 ratio by weight for TVP in combination with conventional protein sources such as meat, poultry or fish. One company advertised a beef flavor product at 55¢ a pound, ham flavor for 78¢ a pound and chicken flavor for 81¢. They are suitable for meat patties, sauces, meat loaves and stews, often saving on cost while adding protein value.

High-protein macaroni products have twice as much protein as ordinary macaroni and are being used in the schools in the form of canned and frozen spaghetti and meat balls. This kind of macaroni is comparable to meat in protein content and is approved to meet one-half of the two-ounce meat-poultry-fish protein requirement of a Type A lunch. Thus, one-half or three-quarters of a cup of enriched macaroni plus a meat sauce made with one ounce of meat fulfill the Type A standard.

Another new product is Granular Protein Concentrate. This will be even cheaper than TVP and will have even more protein. Both GPC and TVP are called meat extenders, and they can cut meat costs 20% with no loss in nutritional value, school food authorities report.

A Jet-Age Solution for Bridgeport

Thomas Carroll was asked in 1969 by the City of Bridgeport, Conn., for advice on how to get hot lunches to students in the city's antiquated, crowded inner schools, most of which were surrounded by affluent suburban schools, all with hot lunch programs.

After surveying the possibilities, Carroll, director of food and nutrition services for Bridgeport, says the city chose to develop a system based on the jet-age experience of the airline industry. After all, he adds, if

120 passengers could be fed from a tiny galley in the back of a plane, why couldn't schoolchildren benefit from a similar system?

Carroll submitted his needs to the Morton Frozen Foods Division of ITT Continental Baking Co. The company responded with advice on Type A menus, equipment and galley design. Using the twin-pack technique (hot entree and vegetable in one unit, cold dessert, bread and butter in the other), the city expanded the lunch program to all junior and senior high schools in 1972-73. It also plans to extend the program to the city's elementary schools.

Bridgeport schools receive their pre-packaged meals once a month and store them in a public freezer warehouse. Each day a city truck picks up the estimated number of meals needed for the following day and delivers them to individual schools. Thus, each school has a one-day supply on hand in case of a delivery foul-up. The frozen hot packs go into a small freezer at each school, and the frozen cold packs are placed in a refrigerator for overnight thawing. One and one-half hours before lunchtime the entrees are taken out and stacked in wire baskets that go directly into a high speed convection oven. In 25 minutes they are hot. The cold packs are placed on the serving table, the hot entrees are placed on top of them, and the stack is topped with a container of milk.

Carroll reports that because each child picks up all three units at once, the line moves more than twice as fast as a conventional school lunch line. And everything is disposable--no dishwashing at all. The cost of the equipment recommended by the Morton Co. was far less than conventional kitchen equipment. Carroll said the equipment totaled about $3,000 to feed 100 children at a time and about $5,000 for 500 children. He noted that the federal government picked up 75% of the cost of the equipment and the state picked up an additional 5%. Parenthetically, Carroll pointed out that pilferage of food was negligible under the system. Since all meals come as whole units, everything can be accounted for easily, and any losses are immediately detected.

What's a Spork?

Spork. Mascon. CAMP.

These trade names and acronyms are indicative of the increasing tempo of technological advances that are having an impact on the mass feeding industry.

For example, a spork is a single plastic utensil which combines a spoon and fork, and has an edge that can be used as a knife.

A Mascon is a big compacting machine that chews up everything that's left over after lunch--food, paper, plastics, cardboard. It cuts bulk waste by about 50%, thus cutting down the number of garbage trucks required, one school district reports.

And CAMP stands for Computer Assisted Menu Planning, a development some food authorities believe is inevitable. (See p. 47.)

Contract Feeding: A New Technique for Schools

Bridgeport's alliance with the Morton Co. in setting up a frozen food system is an example of the technique that has come to be called contract feeding--the farming out of much of the school system's food business to a private, profit-making corporation.

Contract feeding entered a new era with a 1970 amendment to the National School Lunch Act which, for the first time, allowed school systems to employ a private food management company to run the whole show without loss of government commodities or funds. Previously, the law specifically stated that schools couldn't receive these federal subsidies if the operation was run by a private, profit-making firm. The result: schools and mass food processors had little interest in developing school lunch programs together, because without the subsidies the private firms could not compete in price with what the schools could do for themselves.

The new regulations have changed that. Schools can now contract with private food management companies and transfer federal funds and commodities to them if these conditions are met:

- Any such funds and commodities will be used by the company only for the benefit of the school's food operation.
- The company will maintain records for the school system to meet federal requirements and report them to the school system each month.
- The books and records of the company shall be available for three years for audit by state or federal authorities.

Encouraged by the new regulations, at least three major food management firms are now working to help solve school feeding problems. They are Mass Feeding Corp., a subsidiary of Jewel Tea Co., set up specifically under the new law to bring services to elementary and secondary schools; Service Systems, Inc., whose president pushed hard for the new amendment; and ARA, a company experienced in industrial, college, university, hospital and other kinds of mass feeding.

Other companies are scrambling to get into the act, but the three firms listed are already serving about 150,000 Type A lunches a day to students in Chicago, Detroit, Buffalo and other cities.

School authorities so far have been cautious in accepting the idea of contract feeders. They have reservations about how well the profit-making companies will do the job, the propriety of turning over to them this part of the education system, and whether the cost per lunch will prove to be too high despite the inclusion of government subsidies.

Food Processing Contracts Catch On

A modified version of contract feeding which is gaining wider use is the food processing contract. Due to rising costs, limited facilities and

personnel-recruitment problems, many schools have not been making full use of USDA-donated foods. Some schools are solving the problem by hiring food processing companies to convert the donated foods into more usable forms.

In Pennsylvania, for instance, schools had entered into 1,000 contracts with 40 food processors by the end of June 1972. That figure was up from 400 such contracts only five months earlier. "The word has spread about processing contracts because school districts have realized that they must save money and this is an outstanding technique," said Warren M. Vann, director of Pennsylvania's Bureau of Government Donated Food.

Food processing contracts in Pennsylvania were first used in 1969 when several schools found they had an excess of USDA-donated flour. In return for reduced prices on bread, the schools gave the flour to local bakeries. Vann estimates that a school using this arrangement can save about 10¢ per loaf, based on wholesale prices. Schools can also take advantage of savings on a number of other items, including mayonnaise (up to 50% savings), macaroni products (50% savings) and hot dogs (up to 15¢ to 20¢ per pound less), Vann says.

Food processing contracts are profitable to the processors as well. In Pennsylvania alone, "about $750,000 worth of USDA commodities passed through processors' hands in 1971," Vann says.

What type of problem is a school system likely to be confronted with in relation to food processing contracts? Mainly administrative problems, according to Vann. "Since none of us here is a commercial processor, it has taken us time to learn what to look for in the contracts we review," he says. Although each school chooses its own contractor, it must submit any agreement it makes with a contractor to Vann's bureau. There, the agreement is reviewed and checked for compliance with USDA regulations. (A USDA-recommended sample food processing contract is reproduced on pages 43-44.)

Hot vs. Cold in St. Louis

It is obvious that adding heat to a food does not enhance its nutritional value. As long as the meal is properly balanced, a bag lunch with a sandwich, a piece of fruit, milk and perhaps a salad or juice can be just as nutritious as a hot entree-style lunch. The difference, of course, is acceptability--a hot lunch generally seems more appetizing than something out of the old brown bag.

But isn't a cold lunch better than no lunch at all? That was the dilemma St. Louis faced several years ago, and it opted for the cold lunch. After a survey showed that only one out of three elementary schools in the St. Louis system was getting Type A lunches, the school board decided to do something about it. But food prices and labor costs were rising, and only 55 of the city's 150 elementary schools were equipped to handle food service. To add hot lunch service to approximately 100 more schools immediately--even using techniques then available--appeared ruinously expensive. The estimated cost of just one installation was $25,000. Raising the price for hot meals to cover the costs also seemed self-defeating.

St. Louis came up with what it called the Vit-A-Lunch, meeting all the Type A standards, but packed in bags. Tried out on a small scale at first, Vit-A-Lunch soon proved to school authorities that they could extend the plan citywide. Each student paid 25¢ per lunch (in 1967). The school board then decided to close all existing hot lunch programs in elementary schools and to switch completely to the cold lunch. By 1968 the service covered all 150 elementary schools.

The brown bags gave way to more attractive paper bags covered with a see-through plastic film. Health authorities agreed that the Vit-A-Lunches could be kept without refrigeration in the serving schools for a maximum of two hours. Each serving school, then, only needed refrigeration for milk.

By 1972, however, St. Louis was experimenting with the addition of a hot item to the Vit-A-Lunch--replacing the cold sandwich with a hamburger, pizzaburger, hot dog or chicken-fried steak. One day a week there was a hot-plate item such as chili, stew, macaroni and cheese, or beans and franks.

The hot-item experiment went over well with the students, and in a survey of the schools in the pilot program, the hot items were rated as more palatable. Parent groups also signaled approval.

St. Louis plans construction of a new centralized food service facility at a public stadium site, and installation of ovens in the receiving schools. The district will extend the hot food program to all elementary schools by the spring of 1973 at a selling price of 35¢ per lunch.

Washington's Chill-and-Serve

In 1968, Washington, D.C., faced a shortage-of-facilities problem similar to that in St. Louis. Only 63 of its 191 schools had kitchen and cafeteria facilities. To meet the problem as quickly as possible, school authorities tried the brown bag approach, with hot lunches served in only four schools. But the acceptability of the bag lunches plummeted, and the district began to expand its hot lunch program.

The district moved into satelliting in a big way, using the chill-heat-and-serve variation. The district uses two machines that can pack 1,000 portions in 30 minutes. The portions move down an assembly line where they are placed in specially designed plastic containers. At the end of the line, they are automatically sealed in film. Dividers within the container are level with the outer rim so that each cavity is also individually sealed. This prevents spillage of juice or seepage of sauces from one compartment to another. Since initiating the new system, the district has more than doubled the 31,359 children it served in 1968; in 1971-72 the count was up to 72,000, including 47,000 served with no cost to the students.

A Word on Labor and Equipment Costs

Costs of basic foods and labor to prepare them vary widely in different sections of the country, so little in the way of specific advice can be of-

If You're Starting from Scratch, Ask the Experts

School systems have several places to turn for advice on feeding problems. A good place to start with is the state school food service director. The federal government can provide funding and technical advice. Particularly if a system is starting from scratch, it should find out what the federal government can and will do for it. For information, write to Herbert D. Rorex, Director, Child Nutrition Division, U.S. Dept. of Agriculture, Washington, D.C. 20250.

USDA also makes available the following aids for school food programs:

- Menu Planning Guides for Lunch Programs and Breakfast Programs
- Recipe Card File
- Guides for Writing and Evaluating Recipes for Type A Lunches
- Kitchen Equipment Guide (an updated version is under way)
- Private School Lunch Management Manual
- Food Buying Guides
- Food Storage Guides

fered. One thing can be counted on, though: both tend to go up rather than down. Automation and labor saving machines are fine, especially for big school systems using centralized food plants. But if a system is small, it must make sure that a $2,000 slicing machine will actually save money in the long run. The food service administrator will want to get answers to the following questions: How many man hours of labor will it save? How much will it be used, and for how many purposes? Is it easy to clean, or will workers avoid using it to avoid cleaning it? Is it safe?

Options in school food programs are many, as already described. But a system that is just right for one district may be all wrong for another. A district must get good advice before committing itself. Even before the 1970 amendment that allowed food management companies to move into school food service, private companies were available for consultation on setting up school food systems.

Local colleges and universities with food management departments often are willing to lend expert advice and help. And, as in the case of Bridgeport and Philadelphia, school systems are increasingly turning to private companies to help solve feeding problems. However, some private companies are more reliable than others and schools should check on a company's reputation before making a contract with it, USDA advises.

Sample Donated Food Processing Contract

AGREEMENT MADE THIS day of 19 , by and between _____(Agency)_____, _____(Donated Food Agreement Number)_____ party of the first part; and the _____(Processor)_____ party of the second part.

WHEREAS, the U.S. Dept. of Agriculture has made available to the State Distributing Agency hereinafter called the State D/A, Federal donated food for distribution to recipients in _____(State)_____, and WHEREAS, the Agency is desirous of arranging with a commercial Processor for the production of _____ using certain donated foods. NOW, THEREFORE, the parties hereto do agree as follows:

1. The Processor agrees to produce consumable food products using among other necessary ingredients, the following USDA donated foods: _____. Attached hereto and made a part hereof is an exhibit showing each end product, the quantity of donated foods and the other ingredients to be used in its production, and the net weight per unit of end product and the yield of end product per cwt. of each donated ingredient.

2. The selling price per unit is established as per the attached schedule. The selling price per unit represents the lowest current wholesale price adjusted by the usual volume discounts and the estimated value of USDA donated foods utilized. Thus the unit price reflects only the cost of ingredients supplied by the Processor and payment for the service performed. The price schedule should include, as a minimum, the following: (a) Unit price to Agency, in consideration of volume to be supplied, if USDA foods are not utilized in production of finished product; and unit price, in consideration of volume to be supplied, if a USDA food or foods will be utilized; (b) If this agreement provides for the use of Government donated foods in unitized meals, the attached pricing schedule will show the selling price per meal (adjusted by the usual volume discounts) and the rate at which a credit will be computed for donated food used in the meals.

3.A. If the Agency supplies the donated foods to the Processor from Agency inventory, the Agency shall be fully accountable to the State D/A and USDA for all donated foods delivered into the possession of Processor and shall keep a perpetual inventory of donated foods. The inventory shall show current stocks, receipts and withdrawals for processing. All withdrawals shall be supported by subsidiary records which show delivery to the Processor and the receipt of the end products in the appropriate volume from the Processor. In all cases, the Agency will keep records of the end products and the volume of each received from the Processor. The Agency will retain all records for three years following the close of the federal fiscal year in which they are made. B. Processor shall keep a perpetual inventory of donated food received and the source of supply. (a) The Processor shall fully account for the USDA foods delivered, the end products produced; and be liable for the return of all foods not so accounted for or for the value thereof and will return all unprocessed foods in its possession at the termination of this contract. (b) The Processor shall keep a perpetual inventory of the donated food received, quantities withdrawn for processing, and number of units produced. (c) The Processor shall maintain records of all end products delivered under terms of the donated food processing agreement.

4.A. If the Agency supplies donated foods from its inventory to the Processor, the Agency shall submit monthly reports to the State D/A detailing deliveries to the Processor, foods being processed and end products returned by the Processor. B. Processor shall maintain records and submit regular monthly reports to the State D/A _____ _____(Address)_____ pertaining to performance under the contract. This reporting is to include, but is not limited to: (a) List of agencies under agreement and number of units delivered to each; (b) Total units delivered and yield; (c) Beginning donated food and date; (d) Donated foods received; (e) Donated foods used; (f) Balance donated foods on hand and date;

5. Processor shall wrap, package, or can all units produced under this contract using donated commodities, in suitable paper or suitably labeled, which shall bear the legend,

"This product contains commodities donated by USDA. NOT TO BE SOLD OR EXCHANGED." Label shall also bear the name and address of the Processor and certification Registration by the _____ Dept. of Agriculture if applicable.

6. If approved by the State D/A the Processor shall apply as a credit to the account of the Agency, any funds received from the sale of donated food containers, and if the containers are sold for commercial re-use, all restrictive markings shall be completely and permanently obliterated or removed. The Processor shall also apply as a credit to the account of the Agency, the market value of any by-product derived from the by-products which are sold;

7. All products delivered under this contract must be produced by the Processor at: _____ (Location) _____...;

8. The Processor shall not assign or delegate the processing, either under a subcontract or other arrangement, without the written consent of the Agency, and the State D/A;

9. The Processor shall store all USDA donated non-fungible foods apart from his own foods and not commingle them;

10. The Processor in processing may commingle or substitute for any USDA donated food designated as fungible foods by USDA provided a like quantity of equal or better quality to the donated foods is substituted, and the end product is that agreed on. All other donated food items must be utilized without substitution ...;

11. Processor agrees to produce and deliver quantities of the finished product(s) upon the order of the Agency, as specified, to such point as may be designated by the Agency;

12. Processor shall indemnify and save Agency harmless from all claims, damages... arising out of personal injury, death, or property damage sustained or alleged to have been sustained by any or all persons as a result of or arising out of any act or ommission of Processor, its agents or employees, or caused or resulting from any deleterious substance in any of the products produced from donated foods;

13. Processor shall comply with all applicable federal, state and local laws...pertaining to wages, hours and conditions of employment. In connection with performance of work under this contract, the Processor agrees not to discriminate against any employee or applicant for employment because of age, race, religion, color, sex, or national origin;

14. It is mutually agreed as follows: This agreement may be declared void at the option of the Agency, if the agreement or any right thereunder is not complied with by the Processor. Also this agreement may be terminated by the Agency or the Processor upon 30 days written notice to the other....;

15. No employees of the _____ or any of the agencies for which processing agreements have been approved, shall be admitted to any share or part of the processing contract or to any benefit that may arise therefrom;

16. This agreement shall become effective when approved by the State Distributing Agency, and will terminate on _____ 19 . Contract periods may not be in excess of one year. However, this agreement may be renewed for additional one-year periods.

17. When donated meat or poultry products or both are incorporated in the end products, all such processing shall be accomplished only in plant(s) under continuous inspection by the Federal meat and poultry inspection service.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed by their proper agency thereunder duly authorized.

MAKING MEALS APPEALING

Variety and flexibility, most food specialists agree, are the keys to getting more children to eat a nutritious lunch and leave less of it on their plates. The ways of accomplishing this, within the framework of the Type A lunch requirements, are about as varied as the human imagination allows.

For younger children, simple foods lightly seasoned seem to have the best acceptance. Young children like to eat foods they recognize and are used to at home, school food authorities report. And they are more sensitive to seasonings than older children. Smaller portions also are recommended--a grade school tot might be intimidated by the larger portions that a high school student might consider merely adequate. Regional tastes vary also. In the Southwest, for instance, where there are concentrations of Mexican-American children, some schools have experimented with adding tacos and other "ethnic" foods to their menus. Anthony C. Bartolotta, director of food services for the John Sexton Co. of Chicago, suggests that many standard items, including commodities available from the government, lend themselves to such ethnic variety. Pizzaburgers, for example, are made of ground beef or sausage, with cheese and tomato sauce, spiced with a dash of oregano and served on English muffins. Commodity corn meal, he adds, makes a tangy Italian polenta when topped with sausage and tomato sauce and sprinkled with grated cheese.

"To add a little 'soul' to the vegetable selection, use convenience cans of okra, mustard greens, turnip greens or hominy," Bartolotta wrote in School Lunch Journal. "Variety can even be introduced into old standby menu items to spark student interest. Children often make up their own strange culinary combinations for lunch at home--so why not let them do the same at school? Peanut butter, catsup, cheese and bacon bits are all highly nutritious foods that can be used in 'imaginative' combinations with hamburgers, jelly sandwiches or fish sticks. You might even put such condiments on a table away from the serving line," Bartolotta said.

Addressing the problem of getting weight-conscious high school girls to eat a balanced diet, Bartolotta suggested making one serving line into a salad bar, complete with a selection of familiar salad dressings off to one side, rolls and butter and skim milk. Protein-rich and vegetable-fruit foods can easily be included in a julienne-style salad using the same foods used in hot lunches--cheese, bologna, ham, beef, hard-boiled eggs and a variety of carrots, celery, raisins, apples, cauliflower, green pepper and lettuce.

"Another way to get nutrients into light lunchers or fussy eaters is to add a soup station to the serving line. Hot soup is available in convenience form and adds only pennies to costs," Bartolotta added.

Getting down to basic menus, Geneva Bolton, nutrition consultant for Missouri's school services, compiled a list of basic menus within the Type A pattern for School Lunch Journal that illustrates the wide variety possible.

Types of Choice Within Framework of Type A Pattern

Basic Menu No. 1	Basic Menu No. 2	Basic Menu No. 3	Basic Menu No. 4
	Deviled Eggs		
Baked Ham	Turnip Greens	Oven-Fried Chicken	Barbecued Beef
Green Lima Beans	Baked Apples	Fresh Green Beans	Mashed Potatoes
Carrot-Cabbage Salad	Carrot Sticks	Onion and Beet Slices	Broccoli
Hot Rolls--Butter	Cornmeal Muffins--Butter	Hot Biscuits--Butter	School-Made Bun--Butter
Sliced Peaches	Yellow Cake with Peanut Butter Sauce	Grapefruit Sections	Fruit Compote
Milk	Milk	Milk	Milk
	Choice of Main Dish		
Choice of Main Dish	Deviled Eggs or Baked Beans	Choice of Main Dish	Choice of Main Dish
Baked Ham or Tuna-Cheese Biscuit Roll	Turnip Greens	Oven-Fried Chicken or Baked Haddock	Barbecued Beef or Roast Pork
Green Lima Beans	Baked Apples	Fresh Green Beans	Mashed Potatoes
Carrot-Cabbage Salad	Carrot Sticks	Onion and Beet Slices	Broccoli
Hot Rolls--Butter	Cornmeal Muffins--Butter	Hot Biscuits--Butter	School-Made Bun--Butter
Sliced Peaches	Yellow Cake with Peanut Butter Sauce	Grapefruit Sections	Fruit Compote
Milk	Milk	Milk	Milk
	Choice of Vitamin C-Rich Food		
Choice of Vitamin C-Rich Food	Deviled Eggs	Choice of Vitamin C-Rich Food	Choice of Vitamin C-Rich Food
Baked Ham	Turnip Greens or Asparagus	Oven-Fried Chicken	Barbecued Beef
Green Lima Beans	Baked Apples	Fresh Green Beans	Mashed Potatoes
Carrot-Cabbage Salad or Sliced Tomatoes	Carrot Sticks	Onion and Beet Slices	Broccoli or Green Cabbage Salad
Hot Rolls--Butter	Cornmeal Muffins--Butter	Hot Biscuits--Butter	School-Made Bun--Butter
Sliced Peaches	Yellow Cake with Peanut Butter Sauce	Grapefruit Sections or Strawberry Shortcake	Fruit Compote
Milk	Milk	Milk	Milk
	Choice of "Other" Vegetable or Fruit		
Choice of "Other" Vegetable or Fruit	Deviled Eggs	Choice of "Other" Vegetable or Fruit	Choice of "Other" Vegetable or Fruit
Baked Ham	Turnip Greens	Oven-Fried Chicken	Barbecued Beef
Green Lima Beans or Squash Casserole	Baked Apples or Congealed Fruit Salad	Fresh Green Beans or Green Lima Beans	Mashed Potatoes or Corn-on-Cob
Carrot-Cabbage Salad	Carrot Sticks	Onion and Beet Slices	Broccoli
Hot Rolls--Butter	Cornmeal Muffins--Butter	Hot Biscuits--Butter	School-Made Bun--Butter
Sliced Peaches	Yellow Cake with Peanut Butter Sauce	Grapefruit Sections	Fruit Compote
Milk	Milk	Milk	Milk
	Choice of Dessert		
Choice of Dessert	Deviled Eggs	Choice of Dessert	Choice of Dessert
Baked Ham	Turnip Greens	Oven-Fried Chicken	Barbecued Beef
Green Lima Beans	Baked Apples	Fresh Green Beans	Mashed Potatoes
Carrot-Cabbage Salad	Carrot Sticks	Onion and Beet Slices	Broccoli
Hot Rolls--Butter	Cornmeal Muffins--Butter	Hot Biscuits--Butter	School-Made Bun--Butter
Sliced Peaches or Apple Crisp	Yellow Cake with Peanut Butter Sauce or Chocolate Pudding	Grapefruit Sections or Strawberry Shortcake	Fruit Compote or Banana
Milk	Milk	Milk	Milk

Add Variety to the Menu

USDA's Food and Nutrition Service is constantly reviewing its requirements in the light of new research and exploring the place of "engineered" foods in school lunch programs. The service also believes variety is the spice of life.

On the question of how to "sell" a Type A lunch, USDA says: "For younger children you start with smaller portions and introduce them to new foods gradually. You encourage classroom tasting parties, geography lessons on food, bulletin boards on the day's menu, participation by teachers and pleasant lunchroom surroundings."

But older children want more independence of choice, USDA advises, so a "free choice" approach is desirable. Many schools set up student advisory committees that help with the planning and advise on the types of foods most popular with teen-agers. USDA points out that the Type A pattern is designed for 10- to 12-year-olds and should be modified for older or younger children.

Regional variations and exceptions also are approved by USDA. Though Type A requires a half pint of fluid whole milk, in an emergency the equivalent in canned, whole dry or nonfat dry milk can be used. In American Samoa, Puerto Rico and the Virgin Islands, a serving of a starchy vegetable or an enriched cereal product may be substituted for the bread requirement. USDA spokesmen add:

"As you can see, the school lunch regulations provide the latitude for just about any kind of lunch that a child would want. The choice of foods is boundless, and school lunch managers should have little difficulty in planning lunches that look good, taste good, are good for and popular with children."

Menu Planning by CAMP

USDA's Food and Nutrition Service also is experimenting with CAMP--Computer Assisted Menu Planning. Pilot tests were made during the 1971-72 school year in Miami, Fla., and Memphis, Tenn. Miami was selected because all its schools are in the National School Lunch Program under a single unified management, with standardized food specifications and menus that lend themselves to computerization. Memphis also had access to computer services and was particularly interested in the experiment.

CAMP involves programming a large computer tape to include many recipes and variations that meet the federal meal requirements. Recipes are "costed out" and measured in terms of nutritional values. USDA cites two advantages of a CAMP system:

- CAMP saves money by allowing a local school system to select automatically, through the computer, the lowest-cost menus that meet its standards of nutrition and palatability.
- It saves time. Menu planning takes up a great deal of the food service manager's time, and the computer can cut that drastically.

Stephen J. Hiemstra, of USDA's Nutrition and Technical Services staff, says USDA's goal for CAMP is one master tape that would be provided free to all schools in the National School Lunch Program. However, participating schools would need to have some access to a computer.

Eventually, he says, entire school systems or states could be plugged into the master tape, with a terminal or console in each lunchroom, allowing two-way communication with the computer. If there were last-minute changes in the amount of food needed that day, for example, the lunchroom manager could so instruct the computer for a recalculation.

Though there would be one master tape, schools in the system would not necessarily have identical menus. "Individual schools or systems could make selections based on individual preferences," Hiemstra says, since the menus produced by the computer depend on what instructions are fed into it.

Cafeteria Organization and Atmosphere

Setting up a school food service is a complex operation, and school administrators should avail themselves of the best possible professional advice, both on cafeteria and kitchen design as well as on food preparation methods. One practical handbook, 20 Million for Lunch, was published by Educational Facilities Laboratories (EFL), a nonprofit research corporation funded by the Ford Foundation. (Although the booklet is now out of print, the tips contained in it are still valid for school administrators.)

Since cost is always a vital consideration, the EFL handbook recommended that schools emphasize long-range planning and use sturdy, durable equipment.

From China Plates to Plastic Throw-aways

Though some traditionalists regret the passing of the old ways of preparing food from scratch, using fresh produce, cooking it on a stove and serving it on china plates, the imperatives of cost and the huge size of the school lunch program dictate greater reliance on space-age methods--processed, pre-packaged foods, freezing as the most economical way of storing, and plastic throw-away utensils.

Progress has become a distasteful word to some. But just as Henry Ford revolutionized the industrial process in the second decade of this century by introducing the assembly line, further movement in this direction seems inevitable, school food authorities believe. The cost-per-meal is frequently cut when meals are prepared in a central or satellite factory-kitchen and transported in great quantities to schools where they can be heated or unfrozen in space-saving appliances.

Labor costs are often cut with streamlined preparation methods; bulk food buying brings the economic clout of entire school systems to bear on market prices; and more and more children are served nutritious lunches and breakfasts.

The EFL handbook aimed at helping the school administrator calculate costs and needs from A to Z, starting with the basic determination of just what the program's objective is, what its "market" will be in terms of age groups and how large a mix of needy children it will serve.

"This does not preclude the use of professional help, for there is no do-it-yourself method for building a food service facility," the handbook warned. "However, a great deal of time and money can be saved if the administrator can present the architect, equipment suppliers and consultant, if any, with sound limitations and direction for the facility.

"The combined efforts of architects, consulting engineers, equipment specialists, sanitarians, the state and local school lunch advisory staff and professional food service consultants can assure that a school food service facility will be useful for many years, but only if they are thoroughly familiar with the predetermined goals of the food service program," EFL said.

As far as actual cafeteria layout is concerned, here are some typical arrangements:

- Sawtooth. A series of diagonally set counters, each with a particular group of items, allowing a student to go directly to the counter with the food of his choice.

- Scramble System. Usually laid out in a hollow square, with hot food on one side, salads and desserts on another and sandwiches and beverages on a third. Students go directly to the counter they want from the central "scramble" area. Advantage: faster food service. Disadvantage: takes more space than other methods.

- Straight Line. The traditional cafeteria setup, which may be the most economical for smaller schools. Speed of the line is determined by the cashier at the end.

- Family Style. Platters and bowls of food are set on tables by attendants and served by a host or hostess. Gracious dining, but costly in time and labor and not practical for the average school.

- Walk-up System. Students go to a window for a complete lunch, or to one or more windows for various items. Fast when a plate lunch is used, but allows no "merchandizing" since the food is not on display.

- Straight Line Assembly Table. When there is no menu choice a standard cafeteria counter is unnecessary. Preassembled trays with tableware and cold foods are placed in carts at one end of the table. Hot foods are dished onto the trays as they pass and the tray is handed to the child at the end of the table.

- Assembly Table with Conveyor. A variation of the above in which a conveyor belt is used for the trays instead of rolling carts.

- Bypass Line. Best when a la carte meals are served and many students need only to supplement homemade brown bag lunches. The serving counter

is in three sections, with the middle one recessed. The first section offers salads, sandwiches and relishes; the center bypass section is for hot foods; and the end section serves desserts and beverages.

- Vending. Vending machines for all types of food, including the Type A lunch, have been developed, and in this system they are simply installed in the lunch area. A controversial method, with some objections on the grounds that it is impersonal--the ultimate machine approach--and may permit children to choose meals not nutritionally balanced. It works in some schools but not in others, school food authorities report.

Improving Cafeteria Atmosphere

The atmosphere of many school cafeterias, particularly in big cities, often has much to be desired and has come in for some heavy criticism. For example, Bruno Bettelheim, a psychologist and a writer for popular magazines, says "our school cafeterias are an abomination with their herding and rushing of children. This is why most violence in our schools begins and explodes there. I have in mind not just a filling of the stomach, but an enrichment of the total personality around a meal. This requires that small groups of children and teachers eat together. If teachers eat different fare in a separate room, then education becomes a class system from the beginning. Deprived children, especially, are made to feel themselves a group apart.

'Food is the greatest socializer, from the first date of lovers to the receiving of ambassadors. All great social events require a shared meal. If we did the same thing in our schools, they would take on a very different meaning, particularly for the deprived child whose very deprivation is a feeling of being excluded from all meaningful social occasions....

"Children feel, though they cannot or will not tell, that food given unwillingly, given without love, is not good nutrition, but an insult. Even when forced by hunger to eat it, they end up hating themselves for accepting what is offered under psychologically unacceptable conditions, and by hating the school that tempts them to do something that runs counter to their self-respect."

Paul Briggs, superintendent of schools in Cleveland, expressed even stronger criticism in the School Lunch Journal: "I think that if we made a scientific survey we would find that well over 80% of the riots in American public schools have started in the lunchroom. As a school administrator in a large urban area I have had an opportunity to examine the pattern of school riots. I think many have started in the lunchroom because that area is designed for riots.

"It is in the lunchroom that we mistreat children more than any other place in the American school. The mistreatment begins with the tense, unpleasant atmosphere of the lunchroom, an atmosphere brought about by the fact that we've never considered food service to be an important part of the school program. We have regarded it as a sort of 'necessary evil.' Children have to eat at noon. So we put them into a big room. We think we're smart in designing the equipment in this room so that we can seat twice as many young-

sters as we should. We push them together--tighter than we do in the classroom where there are at least a few inches between the chairs...we make the tables narrow; we allow just enough room for each plate or tray....

"Any statistical study made of your lunchroom operation will pay far more attention to how fast the line moves than how the children are treated as they go down the line. And what do we do before the child even gets to the serving line? We line him up for about half a block, then let teachers go to the head of that line (that creates another problem of resentment contributing to the unhappy atmosphere....)

"There are other elements contributing to the atmosphere problems. We build the room without a thought to acoustics--so it's noisy. We didn't properly ventilate the room--so the odors are heavy. If a child has any sort of problem, this kind of atmosphere is bound to accentuate it...."

Some school lunch authorities would consider Briggs' analysis a bit harsh, perhaps, but they would also concede that most lunchrooms are in serious need of improvement. They say that while riots may not be the likeliest outcome of poor cafeteria planning, the rushed, gloomy eating atmosphere of many schools encourages students to spend their lunch hours elsewhere.

What Can Be Done?

Supt. Briggs also suggested some solutions:

"I certainly think we must lengthen the time we give our children to eat their lunch," he said. "This must be a time of relaxation in their full and busy day. It must be a time when they can talk out loud. It must be a time when they can listen to some good music piped into the lunchroom. In essence, we must create an atmosphere that is not the least bit like a mass feeding area."

Cleveland has been experimenting with "stacked" lunchrooms, with one on top of the other for three floors and the kitchen at the bottom, serving the rooms above by elevator. Thus the rooms are designed to handle fewer children in a more spacious and relaxed atmosphere. Briggs adds:

"I think we should also do something about all that stainless steel in our lunchrooms. We have made them look like clinics rather than pleasant places to eat. There are other materials on the market today that are as effective and as sanitary as stainless steel, but are far more attractive to the diner. If only one room in the school can be air conditioned, I firmly believe that room should be the cafeteria...."

Briggs admits such things would cost money and suggests that one way to find it is to fire all "kitchen consultants." "Perhaps the worst job in educational planning being done anywhere in America is in the area of consulting on kitchen layouts. The consultant is dealing in an area no one knows too much about--particularly the superintendent of schools. The consultant is dealing in an area where the architect, in most cases, is woefully ignorant. And I think most of our kitchen consultants tend to represent the manufacturers rather than the school district."

An Anguished Cry—And a Radical Solution

An anonymous educator clobbered the lunch program at his school in an article entitled "Lunch Hour--Who Needs It?" (Teacher's Voice, published by the Michigan Education Assn.) Here are excerpts:

"I don't know what the lunch period is like at other schools, but at mine it is bedlam. The students eat in three short, noisy, messy, crowded and thoroughly unwholesome shifts. Fights, thefts, and acts of vandalism are more common during this chaotic period.

"Nobody is very happy with the situation. The students complain about it constantly. The cafeteria workers have threatened work stoppages because of the terrific mess left by the students.... The counselors, expected to help out by the principal, are reluctant to spend time away from their regular work. The administrators have to interrupt their duties to act as lunch guards and busboys....

"There may be a number of ways to solve this problem, but one of them is simply to abolish the lunch period, shorten the school day to five hours and start classes at 7 a.m.... Consider the immediate benefits: the academic climate would be improved by the lack of interruption in the schedule...students would be able to sustain their interest better during the somewhat shorter day. A daily crowd-control situation would be eliminated...everyone could look forward to a stress-free lunch hour.... At my school, we could enact such a schedule not as a cure for a crisis, but as a preventive measure...one designed to ease tensions and increase the possibility that real solutions can be found."

Briggs said he had issued this edict in Cleveland: "No more kitchen consultants!" Why? Because in the last five schools built "we have had to take out over 40% of the kitchen equipment the consultants insisted was necessary--equipment the cooks couldn't handle and didn't operate."

Briggs added: "I would suggest that the time has come for us to take a real look at our urban crisis, to try to understand it and remember that we'll soon have to serve meals for all our children. But we're going to have to eliminate a good many expensive practices to do it. We cannot do it by building great kitchen empires.

"It's got to be done simply, with flexibility, with good taste, where we serve smaller groups of children, where we give them more time to eat, where there is a friendly atmosphere conducive to the education of the very nice people who are our children," he concluded.

Supervision of the Lunchroom: A Nagging Problem

Lunchroom supervision is a nagging problem for school administrators. Teachers resist being pressed into this duty and, increasingly, teacher contracts are specifying that they should be free from supervisory duty during lunch periods. But given Supt. Briggs' and Bruno Bettelheim's warnings that

cafeterias are potential tinder boxes for disorders, the problem has to be met somehow.

If the school district is wealthy enough, paid part-time supervisors can be hired. Another solution is to recruit volunteer lay supervisors such as neighborhood mothers to keep an eye on the students at lunchtime. In a few schools, teachers are paid extra for lunch supervision, usually at their own option. Sometimes teachers are assigned such work on a rotation system.

The research division of the National Education Assn. (NEA) in May 1972 studied negotiation agreements for teachers in 170 elementary and secondary school systems with 12,000 or more pupils and found that nearly three-quarters of them contained provisions regarding lunchroom duty for teachers. The great majority of the agreements provided a duty-free lunch period for teachers, and the second biggest category provided a duty-free lunch except in case of emergency.

The NEA survey failed to turn up much information on how the schools surveyed provide for supervision, given the numerous teacher contracts that forbid using teachers for the duty. But perhaps the ideal solution is the one provided in the Bay City, Mich., contract:

"All teachers shall be entitled to a duty-free uninterrupted lunch period of at least 60 minutes. Lay supervisors shall be provided to supervise the lunch hour. Teachers may elect noon supervision at the rate paid the lay person."

Seating Plans

- Round tables require less space per seat for four- and six-place tables than any other shape.
- The next most efficient shape for seating is the rectangular table.
- Square tables waste space and should not be used.

Such observations may sound elementary, but they aren't. Planning the seating arrangement of a school cafeteria is an arcane art, and it should be thought about beforehand with great care. At stake are factors that have a direct effect on cafeteria atmosphere--overcrowding, poor circulation, the most efficient utilization of available space.

C. W. McGuffey and D. J. Harrison of the U. of Georgia have brought the scientific method to bear on seating, using complex formulas to compute the amount of floor space needed for a given system.

They have also recommended how much space should be left between various kinds of tables and advise that with rectangular tables, chairs should be placed only at the sides, because end seating wastes too much space.

Following are some charts McGuffey and Harrison have devised to illustrate their spacing recommendations:

figure 1
schematic table arrangement
four-place tables

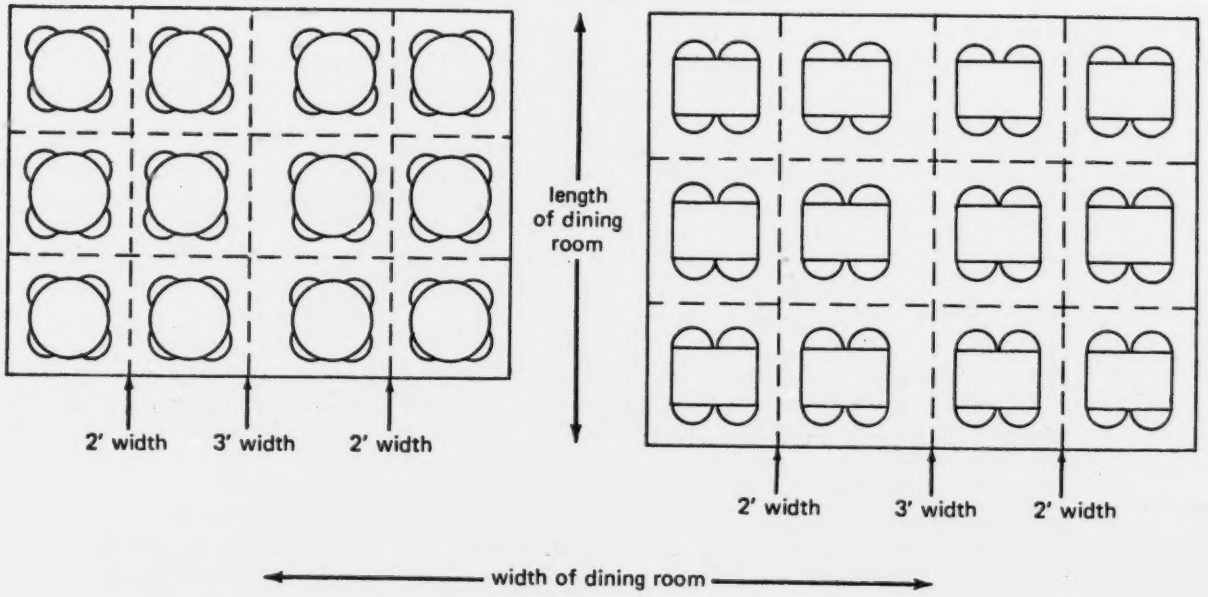


figure 2
schematic table arrangement
six-place tables

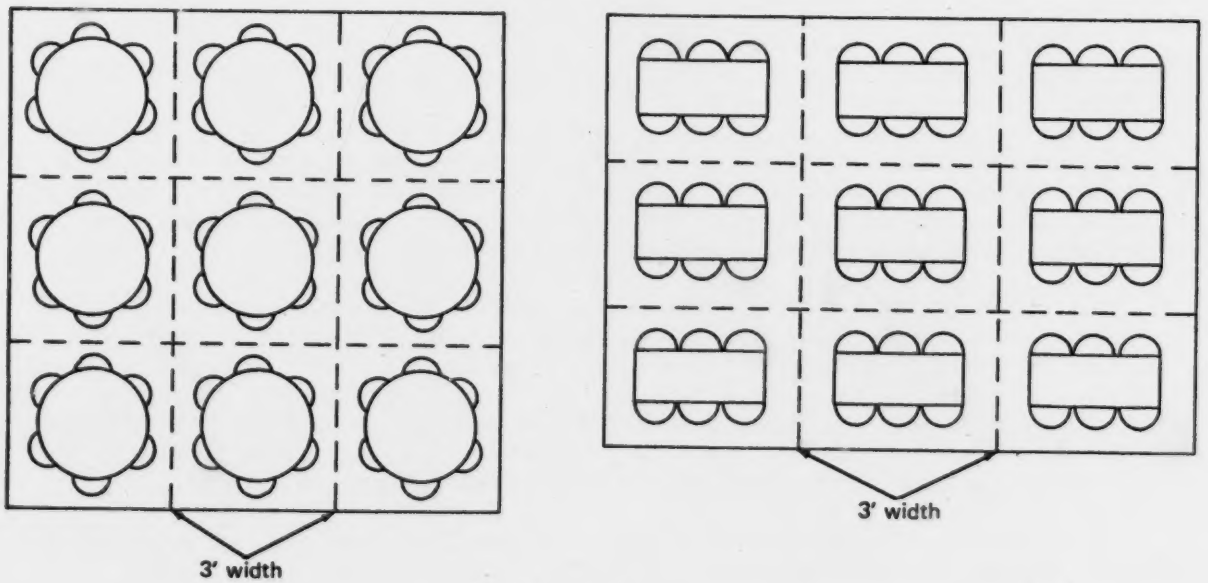
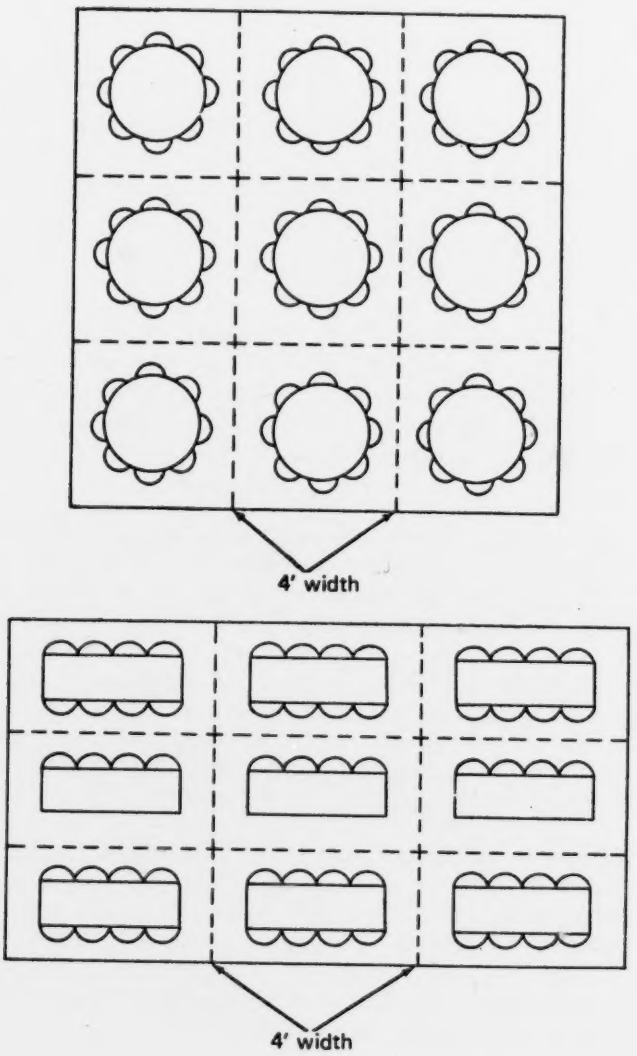


figure 3
schematic table arrangement
eight-place tables



"We recommend that average spaces for both rear and side aisles be four feet, while six feet is appropriate for the front aisle (at the serving counter). Additional space must be allowed for alcoves or other unusable space." The authors conclude: "These computations are not panaceas for actual overcrowding, or for many other problems concerning the use of lunchrooms. They are, however, reliable guides to the most efficient utilization of dining room seating space."

CASE STUDIES: LARGE AND SMALL

The Philadelphia public school system has one of the largest school feeding programs in the nation, although it went into large-scale feeding only recently--1968--and after only one year's research to determine the best and most economical way to serve schoolchildren.

Thomas F. O'Shaughnessy, former director of the district's Food Service Division, estimated there were about 290,000 children in the city's public schools in 1968. Too many of them were not getting anything to eat at noon because they couldn't afford it, or because many schools had inadequate cafeteria facilities or because no one was at home to fix meals, according to O'Shaughnessy.

The problem, of course, was most severe in the city's most economically depressed areas, with a high percentage of broken homes and working mothers, which meant many children had to fend for themselves at lunchtime. Even if they had money, they tended to spend it on soft drinks and candy.

"You just can't teach a hungry child," O'Shaughnessy said. "By our estimate we figured that there were at least 70,000 children in Philadelphia's elementary schools alone who should have been getting low-cost, balanced noon meals--who were then eating catch-as-catch-can. We didn't know exactly how or what, but something had to be done."

Like Philadelphia's parochial schools, the public school system turned to a commercial company--not to provide the food in the cup-can method developed by the parochial schools in conjunction with the Campbell Soup Co., but for specialized service in developing a pre-packaged satellite system. The company provided an integrated system of containers, packaging machinery and transport equipment aimed at helping the school system produce and distribute Type A lunches with speed and economy.

O'Shaughnessy estimated the system saved Philadelphia $6.7 million over a five-year period, compared to the projected cost of installing self-contained lunch facilities at all the Philadelphia schools or with a satellited bulk-feeding operation from central preparation facilities. "This estimate was based on only 156 schools adopting the system," he said. "Things are moving much more rapidly now as compared to the time we made the cost study, and all 240 elementary schools will be using the system by September 1973. The savings will be even greater, of course."

To save on initial capital costs, the Philadelphia school system used district-owned school buses in off hours to transport the pre-packaged meals

to the schools. Later, with government subsidies ($3 for each $1 put up by the school district), it was able to buy trucks specially designed for the transportation of the food trays.

A look at the George W. Childs Community School, which is nearly 80 years old and serves as both an educational and a community center in a predominantly black neighborhood, shows how beneficial the program has been. Through the government lunch program, hot meals can be served at Childs and other schools in depressed areas. The meals are prepared the day before serving in a central kitchen and trucked to the schools that same day or the next morning. The commissary was set up in 1969 at the John F. Kennedy Vocational Education Center in south-central Philadelphia.

The meals meet all Type A specifications and consist of a hot entree and vegetable packaged in a two-compartment aluminum foil container, and a cold portion of fruit, roll and dessert in a clear plastic package. Packages are wrapped in shrink film, and the half pint of milk, plastic eating tools and a straw complete the arrangement. Everything is disposable.

The manufacturing company also furnishes wire baskets and carts for delivering the meals to receiving schools. It does not make convection ovens and walk-in coolers, but it worked with other manufacturers so that its components were compatible with oven and cooler sizes. Each hot portion is heated in the receiving school's convection oven. The coolers are used for the cold packs and the milk.

Eva Weinstein, a counseling teacher at Childs, can testify to some of the poignant results of the school's new lunch program. She remembers a child who had never seen a carrot. Another asked: "Will the purple raisins (plums) poison me?" Mrs. Weinstein replied by eating one first. Other children had never seen or tasted prunes, beets, spinach, pears, cole slaw or cold bean salad.

"There's more interest in food now on the part of both children and parents," says Mrs. Weinstein. "The children ask, 'What are we having for lunch?' when they come in the morning. Parents are extremely conscientious about getting lunch money to school and keeping up to date. When a child is sick, a parent might come to school to take his lunch home to him, or a brother or sister might take it home. We have had other children, really too sick to be in school, come to get lunch. We send them home after they eat, of course."

"All in all," she added, "we've noticed more personal contact and increasingly warm feelings on the part of parents since the lunch program started. We sometimes get telephone calls about the lunch program as late as 10 p.m., and we have received many, many notes of appreciation from parents to whom the program means so much. We sometimes must lend some of these parents money for their children's lunches, but it is almost always paid back. On the children's part, there is much less 'hijacking' of lunch money on the way to school."

O'Shaughnessy also noticed what might be called psychic as well as physical benefits. "A sense of teamwork and esprit de corps developed around

the program that was truly astounding," he said. "This proves that a large food service department can produce excellent meals at less cost than a private firm can ever do and make a profit. We're getting good food to children who need it, and the entire program seems to be building increased confidence in the schools on the part of the community. The city's black population is telling us--in many ways--that now it has more belief in our sincerity when we say we wish to really help."

Pitkas Point, Alaska

From Philadelphia to Pitkas Point is a long way in miles, in size, in racial makeup, in climate and in accessibility. Pitkas Point is a village of 13 homes and 60 inhabitants, on the Yukon River 300 miles below the Arctic Circle. There are no roads or railroads, no stores, no bank, no restaurant. There is no doctor or nurse. Everything that comes to Pitkas Point must be brought by air, dog sled or snowmobile, or by boat in the summer. The village's inhabitants live by hunting and fishing and are extremely poor.

Nevertheless, Pitkas Point has a school lunch program, and it is the result of a warm collaboration between the villagers and a dedicated school teacher, Geraldine Hurley. She, in fact, is the only teacher in Pitkas Point's one-room schoolhouse. The lunch program began when Miss Hurley started adding some extras to the basic Rural Schools Snack Program offered for Alaska's state-operated schools.

With commodities from USDA and with staples bought with Title I funds, the children were getting a lunch usually built around a sandwich and other cold foods. The school board and the village council agreed that a lunch program of some kind was a necessity. But soon Miss Hurley's extra items had blossomed into a full-fledged hot meal with the 10 students planning it, buying the food and usually preparing it themselves.

"It wasn't a planned thing," Miss Hurley said. "The children made it what it is...it began from dire necessity. The appreciation of the children, their enthusiasm, their response in terms of increased alertness and their willingness to pitch in and take the initiative made it what it is." The fund set aside for the hot lunch program got its first boost when three of Miss Hurley's older boys contributed the wages they earned from helping to roll 55-gallon oil drums up to the school from the banks of the Yukon. The girls began staying after school to bake all the bread and cookies.

The class as a whole decided they would rather sit at tables during lunch than eat at their desks. The students designed and built their own tables from materials purchased from the student fund. Thus stimulated by the student fund, the children began opening their own individual savings accounts. The nearest bank was in Bethel, Alaska, 150 miles away. But this venture into finance, aided by a weekly "Bank Day" established by the advisory school board, soon led to the students' ordering supplies from the "outside." The best part of the Pitkas Point lunch program, Miss Hurley said, is that the students "have developed a self-image that can't be topped." Miss Hurley thinks many rural teachers could do as well in utilizing available money and commodities for school lunch programs.

Skokie, Illinois: Making It Bigger and Better

Skokie, Ill., a Chicago suburb of some 70,000 population, had a different kind of problem several years ago--how to quickly expand a lunch program to take care of 33% more students at Old Orchard Junior High School.

The school already had its own kitchen facilities, so the problem its administrators had to solve was how to redesign the feeding system to handle the heavy influx of new students. Unlike their counterparts in larger school districts, the Skokie authorities wanted to retain the in-house cooking and serving capability, though they wisely left optional room for a satellite facility that could serve other schools.

Arlene Grashoff, cafeteria director for Skokie's School District 68, had a lot to do with the research and planning: "My objective was to design a food service facility which could efficiently serve a nutritionally balanced lunch to students at a rate of 30 per minute," she said. "We have accomplished this with the assistance of a well planned menu, two conveyors, two turnstiles and appropriate back-up equipment. Our former double straight-line steam table service was capable of serving only 12 students per minute."

Mrs. Grashoff knew from long experience that students in grades 6, 7 and 8 would probably prefer a menu choice, rather than the single offering that had been provided in the past at Old Orchard. So provision was made for serving two lunch choices a day, varying from chicken, spaghetti and pizza to second choices such as a hamburger or hot dog lunch. (The arrangement was popular with the students, but it had to be discontinued after one year to cut down on labor costs.)

But before the new service system could be implemented, a detailed study was needed. Since the facility would be serving from 600 to 900 students an hour, the conventional straight-line service was considered, as well as vending, "scramble service" and a modern conveyor system. The conveyor system won--but in the form of a double line, each line capable of serving 10 to 15 students a minute.

Another important speed-up decision was to sell students a week's worth of tokens at once, so the line would not be slowed down by individual payment for each meal at a cashier station. The students could simply put a token in a turnstile at the head of the serving line, then pick up their assembled lunch from the conveyors. Silverware and condiments were provided at movable stations strategically located in the cafeteria, away from the serving line.

Hot foods are prepared each morning and, just before serving, placed next to a conveyor belt, either in electrically heated steam table carts or on upright food warmers with bun pans. Cold foods are held in chilled pans or pre-portioned into paper cups and kept in a nearby refrigerator until serving time.

The speed of the conveyor belts can be set appropriately for the type of meal and how difficult it is to assemble. A typical hamburger lunch, for example, works like this: One cafeteria employe starts by picking up an empty compartment tray with her left hand, and with her right hand uses a

pair of tongs to serve a helping of french fries. The next employe assembles the hamburger and puts it on the tray as it moves by on the conveyor belt. A third employe puts a cup of pudding and a pre-buttered ear of corn on the tray. At the end of the conveyor, a switch holds the tray in position until it is picked up by the student. After picking up their trays, the students help themselves to milk and pick up their condiments, silverware and napkins from the mobile stands.

Mrs. Grashoff reports that the new cafeteria increased student participation in the school lunch program from 50% to 60% of the average daily attendance at Old Orchard.

This sort of arrangement requires dishwashing equipment as well as an in-house kitchen. To minimize cost, the expanded kitchen was planned to incorporate all former equipment. As for equipment, Mrs. Grashoff says: "Looking into this modern school kitchen, you will find, in addition to such equipment as the adjustable speed conveyor belt for tray assembly, portable hot carts and individual mobile steam table carts to keep the food at the correct temperature during serving, a pot washer to loosen food which normally fastens itself to baking pans, a vertical cutter mixer, a steamer and steam kettle, convection ovens, high speed fryers and a french fry holding station with heat lamps."

Implementing the new system at Old Orchard required the full cooperation of the kitchen and cafeteria staff. Mrs. Grashoff quotes one as saying, "We'd never want to go back to the old-fashioned way of serving students."

Yet, in a sense, for all its modernity and efficiency, Old Orchard's system is old fashioned. Skokie does not have to consider large numbers of children from poverty families in need of free or reduced-price lunches. By and large, its students (or rather parents) can afford this kind of service, which is a lot different from eating franks and beans out of a "cup-can." However, Mrs. Grashoff feels that Old Orchard's system might also work well in higher poverty areas. She says, "Speed of service is the important clue to our system.... Serving free and reduced-price lunches has caused us no additional problems." So again, Skokie and its food program at Old Orchard Junior High School illustrate that there are many ways of meeting the problem of providing hot lunches for schoolchildren.

What One Man Can Do

Morton Waber, of Wynnewood, Pa., runs a one-man school breakfast program. He began his program in 1968 when his wife, who taught kindergarten in a Philadelphia inner-city school, found out that one of her class troublemakers wasn't getting breakfast before school. On his own, Waber decided to provide breakfasts for the 20 to 30 kids in the class. Three years and 15 schools later, Waber is head of "Food for Thought," a nonprofit corporation that is feeding free breakfasts to almost 10,000 children. Each breakfast costs 18 cents; the government pays 15 cents, and 3 cents is raised by donations to "Food for Thought" solicited by mail or by Waber's own legwork.

PROSPECTS, CONTROVERSIES AND PROBLEMS

The National School Lunch Program, despite its laudable achievements over the past quarter century, still has plenty of problems--the main one being that many hungry children are still not being fed. Many critics cite these causes: the glacial government bureaucracy, the penuriousness of congressional appropriations committees, poor direction of some state programs, budgetary dollar-pinching by the present Administration and, in many cases, misplaced priorities.

One example of misplaced priorities cited by some school food experts is a special additional fund guided through Congress by Rep. Carl D. Perkins, D-Ky., in 1968. Aimed at providing additional funds for feeding needy children, it was financed under Section 32 of the National School Lunch Act. But in its first year of operation, a questionnaire sent to state directors of feeding programs by the Senate Select Committee showed that many states were applying the special moneys to the general school lunch programs instead of earmarking them for feeding more needy children. The intended effect of the money was thus diluted and it was used to subsidize meals for children who could afford to pay.

Intent and Use Are Not Necessarily the Same

One critique of the school lunch program came from a former insider, Rodney E. Leonard, who from 1967 to 1969 was administrator of USDA's Consumer and Marketing Services. Until the Food and Nutrition Service was established in 1969, Consumer and Marketing Services had overall charge of school lunch programs. Leonard called his report Why Child Nutrition Programs Fail, and most of its criticisms are considered to be still valid by many observers.

"While the Congress...paid lip service to a moral responsibility for child nutrition," Leonard said, "the legislation and the form of its administration are predicated on economic interests. Congress passed on the legal responsibility for child nutrition to the states and the local school districts. The Executive Branch (meaning USDA) recognizes that the power center in food rests closer to the economic interests of those who can afford to produce, market, process or consume rather than with those who cannot...the needs of the food industry often dictate how the dollars are spent.

"At the state and local levels, where legal authority presumably rests, the child nutrition programs are in incoherent shambles," Leonard said, citing the special "Perkins Fund" as an example of "gross mis-administration of the program by the states."

"Few states," Leonard added, "operate with more than an accounting staff. Even the best, those with regional program supervisors, do little more than maintain watch over the technical aspects of food preparation. In other words, no one is evaluating need or monitoring inequities--intentional or otherwise."

"Significantly," he said, "when the food assistance programs were transferred in 1969...to the new Food and Nutrition Service, authority over Section 32 (purchase of surplus commodities) was kept in the Commodity Division of C&MS (Consumer and Marketing Services). Obviously, in the struggle to establish priorities, the child nutrition advocates failed to convince the secretary that the person in need of food should be given equal recognition, along with producing groups and processing industries."

While the authorizing committees of Congress, exemplified by Perkins' Education and Labor Committee, often show deep concern for and knowledge of the problem of hungry schoolchildren, it is the appropriations committees which provide the actual money. The appropriations committees usually cut, rather than add to, the minimal requests of any administration, Republican or Democratic. Speaking of his own experience in the previous Democratic administration, Leonard said: "While the appropriations committees tell the administration to go slow on Section 11 (more funds for schools in economically depressed areas) or on the school breakfast and other child nutrition programs, there is no similar record of caution on funds to purchase meat when cattle prices fall or to buy frozen orange concentrate when a surplus in the citrus crop exists."

USDA's Role: A Big Mistake?

Some critics have concluded that the school lunch program is under the wrong department and have suggested that the program be shifted to one more responsive to the needs of hungry children than to the agriculture business. Two sometimes-mentioned nominees are the U.S. Dept. of Health, Education and Welfare (HEW), or a new independent department or agency. As the food service director of a large state said wistfully, "I think the program would do much better if it were in education rather than agriculture."

Indeed, Pres. Nixon suggested such a realignment in a broad governmental reorganization proposal. But the proposal was never pushed hard by the Administration, and now seems to be largely forgotten, though the President could revive it. Seasoned observers, however, regard this as unlikely to happen. USDA has been entrenched in the program for well over a quarter of a century. It appears, therefore, that USDA will be running the National School Lunch Program for the foreseeable future. And this is not to say that within the ranks of USDA there are not many compassionate, knowledgeable, dedicated persons who are doing everything in their power to eliminate the problems of hunger in America's classrooms.

The Program's Future

In spite of the best intentions, several million schoolchildren from families mired in poverty are still suffering from malnutrition. Because of

the intricacies of the law and the lack of close supervision in many cases, paradoxes have emerged in the way the school lunch program is administered. Leonard pointed out that most big cities, where the problem is heavily concentrated, have fallen far short of rural areas in delivering nutritious food to needy children. Notable exceptions among the cities are Philadelphia and New York. Some of the poorer states in the Southeast have done an outstanding job, largely due to higher commitment of state funds to the program and more aggressive administration by state authorities.

It is hardly arguable that the job should not be completed, that hunger and its consequences among the most helpless segment of our population should be wiped out once and for all. But how best to reach them all? Again, this brings up the argument forwarded by proponents of the universal school lunch. It has been endorsed by the American School Food Service Assn. (ASFSA), the American Assn. of School Administrators, and by important congressmen and senators, to name a few.

But there are valid arguments against universal school lunch, and some in USDA and Congress contend it would not be the panacea it appears. Richard Lyng, assistant secretary of agriculture, has given this assessment:

> We estimate that a universal school lunch program in 1974, based on projected school populations and a presumed 80% participation, would cost about $5 billion, of which the federal contribution would exceed $4.7 billion. This year's appropriation for all education programs is $5.1 billion, and the portions applicable to elementary and secondary programs carry a price tag of $3.2 billion. That relationship--$4.7 billion for universal school lunches in elementary and secondary schools and $3.2 billion for all other federal aid to these same schools--raises a serious question of priorities.
>
> As much as I appreciate the role of proper nutrition in child development, I feel that the federal government should not take over that responsibility from parents who have ample resources to carry it out themselves.

Mrs. Norma Kocher, assistant to the director of USDA's Food and Nutrition Service, emphasizes that "the main argument is cost." But she says there are other arguments being presented and discussed in Congress and elsewhere:

- Is it the function of the federal government to feed all children in schools, or is this a traditional family responsibility? Pres. Nixon used a similar argument in his veto of a Child Day Care Center bill, saying that it would weaken family relationships and responsibilities.

- Isn't the school lunch program becoming "just another categorical welfare program" for aid to the needy? In the long run, wouldn't a Family Assistance Plan as proposed by the President be a better way of meeting the problem? Is it better to meet the needs of the poor by welfare or by a guaranteed annual income? Again, a question of priorities, not only as regards schools but for society as a whole.

- Increased funds for "free" lunches would be used to feed children whose families could afford to pay, not for more needy students.

Aside from these philosophical questions, Mrs. Kocher says that a universal program would raise practical questions, among them the "relatively low participation rate, particularly among high school students. We would have to look even harder at this problem, as well as what's needed to make lunch programs better. And, even ASFSA admits cost is a problem."

On the other hand, John Perryman, executive director of ASFSA, counters that the present system is expensive and wasteful, and that the economic means test of the present law is "unconstitutional."

"There is no economic means test in the Social Security program," Perryman says. "There is none in medicare, there is none in the use of public highways or the postal system, there is none in the balance of education, only an archaic, lingering feeling that for food at school we must separate the economic classes."

Citing the California Supreme Court Serrano decision that "...the right of education in our public schools is a fundamental interest which cannot be conditioned on wealth," Perryman adds, "School food service should not be conditioned on wealth either; it too is a fundamental right; it too should be a basic part of the educational opportunity and experience for every child in our schools. Equality is the byword in education today."

Buttressing his argument that the present system is wasteful and expensive, Perryman cited figures from the St. Paul, Minn., schools that its "out-of-pocket expenses for clerks, printing, tickets, envelopes and postage used in trying to determine the needy child" amounted to $26,000 per year, with normal administrative expense not even included. "This amount would purchase approximately 48,000 meals for the schoolchildren of St. Paul," he says. "But suppose we say this figure is more or less a median with many school districts larger and many smaller. With something over 17,500 school districts in the nation, suppose we multiply St. Paul's administrative costs by the number of districts engaged in this tragic waste, we would come up with a startling figure of roughly $445 million a year--the cost of economic segregation--or enough money to pay for nearly a billion meals per year."

Further, Perryman argues that HEW figures show that the cost of school days lost by children through illness or injury amounts to "almost a billion dollars--good food at school could have prevented a lot of it."

Finally, Perrymen argues, "Our present approach to school food service is expensive...because it contributes to inequality in education, that fatal flaw that our courts tell us must be eliminated. ...Poor diets contribute to poor education and poor education makes poverty and privation self-perpetuating."

So the argument is unresolved. One USDA official said: "Given unlimited funds, I think everyone would be for universal lunches. The department (USDA) has been very careful and we haven't ruled it out indefinitely. The problem is present needs, and where you put the available money."

Education U.S.A. Special Reports

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